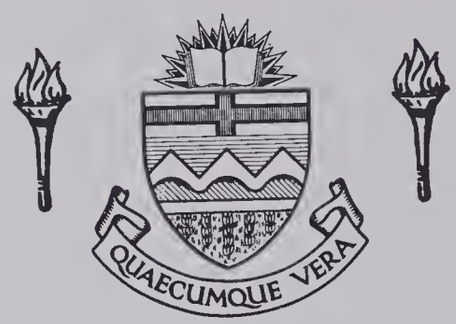

THE UNIVERSITY OF ALBERTA

THE ASSIGNMENT AND MISASSIGNMENT OF INTERMEDIATE GRADE TEACHERS IN ALBERTA

by

© JAMES HARRY FASANO

A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "The Assignment and Misassignment of Intermediate Grade Teachers in Alberta" submitted by James Harry Fasano in partial fulfilment of the requirements for the degree of Master of Education.

ABSTRACT

The purpose of this study was to identify factors related to misassignment at the intermediate grade level in the province of Alberta. Teacher personal, situational and professional variables were examined in relation to two measures of misassignment, one based on university specialization and the other on subject-matter field preferences of teachers.

The data for this study were obtained from the returns of the 1969 Alberta Teaching Force survey directed by Ratsoy for the Alberta Advisory Committee on Educational Studies. The sample consisted of 2,824 full-time intermediate grade teachers. Each teacher in the sample was assigned three misassignment scores based on specialization-assignment and preference-assignment. Approximately three-quarters of the intermediate teachers were women and one-half of the sample consisted of married women. Married men and single women were the most highly qualified of their respective sexes. City teachers typically were younger, more qualified in terms of years of preparation after grade twelve, more likely to be male or single female and to have fewer years of teaching experience both in total and in their current system when compared to their non-city counterparts. Three-quarters of all Alberta intermediate teachers had four years or less experience in their current school. A low congruence between

specialization and assignment and a very low congruence between preference and assignment were established, lower on all three scales than the results of the 1970 analysis on secondary teacher misassignment. A higher congruity between each of specialization and preference, with field of assignment was established for intermediate specialist teachers than for generalist teachers and for non-city teachers when compared to city teachers. Married women, teachers who had been in the system the previous year and teachers who stated they would be in the system the following year displayed greater congruence between specialization-assignment and overall assignment than other groups; however no significant differences were revealed when preference and assignment were considered. Correlations between misassignment scores and variety of practices scores did not reveal any significant relationships.

The possible implications of changing teacher supply for misassignment were drawn and pictorially represented. Recommendations included greater provision for teacher specialization than was common at the time of the study and also included procedures which school boards could employ in their attempts to reduce the level of misassignment. Future studies in this area were seen as concentrating on the relationship between varying levels of misassignment and the effectiveness of instruction.

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CHAPTER 1

BACKGROUND OF THE STUDY

In the early nineteen seventies both professionals and laymen are exhibiting a healthy concern for education, a continuation of the introspective, often turbulent, sixties. Researchers piece together various aspects of learning in an attempt to refine our perceptions of the total learning process.

Deeply intertwined with the learning process is the research area of teacher effectiveness. As more is discovered about learning, understanding the causes of teacher competence-incompetence comes a little closer to being a reality. While research continues, the complexity of the task dictates that maximum benefit will be obtained only through many years of consistent effort. The past decade, however, has seen the emergence of a clearer perception of one dimension of the learning process, teacher assignment-misassignment.

The importance of this research activity rests on the belief that misassignment has the potential to limit teacher effectiveness and thereby reduce student learning opportunities. Parents and their children, teachers and their professional associations, administrators and their employers, Faculties of Education and Departments of Education, and the general public all have a vital concern

with certain aspects of misassignment.

FOCUS OF THE STUDY

The Problem

The problem of this study was to identify factors related to misassignment for intermediate grade teachers.

Sub-Problems

(1) To what extent are intermediate grade teachers in the Province of Alberta assigned to teach in the subject-matter field of their university specialization?

(2) To what extent are intermediate grade teachers in the Province of Alberta assigned to teach in their preferred subject-matter field?

(3) What is the relationship between level of assignment-misassignment and the degree of teacher specialization in one subject-matter field?

(4) What is the relationship between level of assignment-misassignment and teacher personal variables?

(5) What is the relationship between level of assignment-misassignment and the type of administrative unit in which the teacher is employed?

(6) What is the relationship between level of assignment-misassignment and teacher activity during the previous year and intended activity during the next year?

(7) What is the relationship between level of assignment-misassignment and teacher use of instructional

and organizational practices?

Definition of Terms

Fields of assignment. The concept, fields of assignment, refers to the subject areas or grade levels taught by a teacher.

Major field of assignment. This term refers to the subject area or grade level which occupies the highest proportion of a teacher's assignment.

Minor field of assignment. This term refers to the subject area or grade level which occupies the second highest proportion of a teacher's assignment.

Field of preference. The concept, field of preference, refers to the subject area or grade level preferred by the teacher as his main assignment.

Field of specialization. The concept, fields of specialization, refers to the subject areas or grade levels for which the teacher considers himself adequately prepared to teach.

Major field of specialization. The term, major field of specialization, refers to the subject area or grade level for which the teacher considers himself most adequately prepared.

Minor field of specialization. The term, minor

field of specialization, refers to the subject area or grade level which the teacher considers to be his second field of specialization.

Intermediate grades. In this study intermediate grades refers to grades four, five and six in the Alberta school system.

Misassignment. For purposes of this study, the National Education Association definition was adopted. The N.E.A. defines proper assignment as:

> . . . one in which the teacher's education in subject matter and methodology, his experience, and his physical and psychological condition are appropriate for maximum effectiveness in his teaching situation: misassignment constitutes any violation of the conditions of proper assignment (Davies, 1966, p. 10).

Misassignment scores. To determine the degree of misassignment, this study used two scales developed by Rousseau (1970). One scale, Misassignment by Qualifications, compared the field of teacher specialization with the field of assignment; the second scale, Misassignment by Preference, compared the field of teacher preference with field of assignment. In the analysis, these two measures were used separately as well as in combination to yield an Overall Assignment-Misassignment score.

Teacher. The term teacher refers to a classroom teacher, giving all or nearly all of his time to classroom

teaching.

Generalist teacher. The concept, generalist teacher, refers to any teacher assigned to teach a grade rather than a subject as well as any teacher, teaching a main subject assignment less than fifty percent of the time.

Specialist teacher. For purposes of this study, the term specialist teacher refers to a teacher teaching 50 percent or more in his main subject assignment.

NEED FOR THE STUDY

Proper teacher assignment must be recognized as one of the factors contributing to quality education. The importance of proper assignment is emphasized by Scamman and Manalt who state:

> The proper or efficient assignment of teachers to subject-matter areas has been of concern to educators for many years and has been thought to have widespread consequences for student, teacher, administrator and education in general. As society has become more complex, the demand for better educated citizens has risen, and as the scope of knowledge has grown at an increasing rate, there has been a need for as much information as possible concerning all phases of education (Scamman and Manalt, 1967, p. 469).

Satisfactory remedies to misassignment will depend, in part, on how well the problem is understood. This study, in attempting to establish factors related to misassignment

for intermediate grade teachers, should add to what is known about misassignment in Alberta and add to the limited amount of information available on misassignment in elementary grades.

DELIMITATIONS

(1) The study was confined to full-time intermediate grade teachers.

(2) The study was limited by the nature of the data collected in the May 1969 survey of the Alberta teaching force commissioned by The Alberta Advisory Committee on Educational Studies.

(3) Teachers who failed to complete items 18, 21, 23, 26 and 29 of the 1969 AACES questionnaire were excluded from the study. These items include information on major and minor field of specialization, major and minor area of assignment and area of teaching preference.

LIMITATIONS

The National Education Association in outlining teacher characteristics which should be used to determine a teacher's assignment, states:

> Experience, personality and general education are the characteristics that count most for both beginning and experienced elementary teachers; the teacher's social class and seniority count least of the ten characteristics ranked (NEA, 1965, p. 14).

Teacher preference and teacher qualifications were

the two variables used in calculating misassignment scores. Teacher preference was seen as an indirect measure of the interaction between the experience and personality criteria mentioned by the N.E.A.

ORGANIZATION OF THE THESIS

This study of intermediate grade misassignment is reported in five chapters. The present chapter introduced the topic of misassignment and included a statement of the problem and sub-problem. Key terms were defined, the limitations and delimitations of the study were listed.

Chapter two is a summary of the literature on misassignment. Chapter three presents a detailed description of the sample as well as an outline of the misassignment scales and variety of practices scales used in this study. Final sections of the chapter give the methodology of the study and a description of the statistics used in the treatment of the data.

Chapter four has two sections. The first section describes the extent of misassignment among intermediate grade teachers. The following section examines selected variables and the variety of practices ratio scales for relationship to misassignment.

The concluding chapter, chapter five, is a summary of the study and includes implications and suggestions resulting from the study.

CHAPTER 2

A REVIEW OF THE LITERATURE

The number of references to misassignment in recent educational literature mirrors the growing emphasis on quality education. This movement to improve the quality of education assumes "that professional personnel in school service need to be experts in their jobs" (Allen, 1962, p. 413). This interest in proper assignment speaks well for the future of education as a greater proportion of our population appears to be looking for programs of higher quality.

Although the bulk of the literature reviewed was from Great Britain, the United States and Canada, interest in misassignment would appear to be global as the World Council on the Teaching Profession stated:

> Quality teaching depends ultimately upon the quality of the teacher, since basically the problem is to bring into the right teaching relationship teachers who are adequately equipped by personality, ability, training and vocation to evoke from the children the maximum response. Teachers must be men and women with high qualifications and the training best suited to the areas of education with which they are concerned (W.C.O.T.P., 1963, p. 91).

Thus we see the basic theme of quality education which serves as the underlying principle in advocating proper assignment procedures. The World Council on the Teaching Profession asserts: ". . . the principal condition

for quality teaching is quality teachers. We cannot imagine quality teaching without qualified teachers" (W.C.O.T.P., 1963, p. xxxiii).

THEORETICAL CONTEXT OF ASSIGNMENT PRACTICES

One of the most frequently quoted theories of administration which appears to have relevance for instructional supervision is that of Getzels and Guba.

Getzels and Guba view the social system comprised of two major dimensions or classes of phenomena:

> (1) Nomothetic, consisting of institutions with roles and expectations that satisfy the system's goals.
> (2) Idiographic, consisting of individuals with personalities and need-dispositions to be satisfied (Neagley and Evans, 1970, p. 31).

Getzels and Guba point to sources of conflict between aspects of the idiographic and nomothetic dimensions as they hypothesize, when ". . . the personality and need-dispositions of the individual are in conflict with the institutional role expectation, then quality performance will not result" (Neagley and Evans, 1970, p. 32).

Neagley and Evans express the opinion that:

> Individuals in supervisory positions frequently have found support for this hypothesis [nomothetic-Idiographic conflict] when they have been required to assist in the solution of instructional problems resulting from poor teacher assignment (Neagley and Evans, 1970, p. 32).

The central theme to this conceptual framework on misassignment is the apparent conflict between the

individual's need-dispositions and the institutional role expectations. These authors conclude that ". . . teachers can hardly be expected to do their best under these circumstances" (Neagley and Evans, 1970, p. 32).

THE COMPLEXITY OF MISASSIGNMENT

Educational literature for years has contained references to misassignment as a sub-topic to Teacher Morale, Teacher Effectiveness, Pupil Achievement, Team Teaching, Teacher Professionalism, Teacher Selection, and Effective Use of Personnel, etc. Recent research has sharpened our view of misassignment as a learning dimension. Its complexity is described by Ford and Allen who state:

> There are no quick remedies for the problem of teacher misassignment, indeed, it cannot be understood or solved in isolation from many other problems. It is clearly related to such problems as the failure to attract and hold enough academically and personally talented young people in teaching, low salaries for career teachers, inadequate assistance for new teachers and the vast differences among states and school districts in ability and willingness to pay for a first rate school system. Another related factor is the continuing resistance not only to school district consolidation and reorganization but also to new and imaginative ways to utilize time, space, instructional resources, and personnel within a school (Ford and Allen, 1966, p. 41).

THE EXTENT OF MISASSIGNMENT

Misassignment appears to be a widespread phenomenon of twentieth century education. Studies by Collins (1964) and Trauttmansdorf (1968) in Great Britain; Halls (1964),

Lupone (1961), the NEA (1965), in the United States; Rousseau (1970) and the Canadian Teachers' Federation (W.C.O.T.P., 1963) in Canada--all emphasize the growing awareness of and concern with misassignment practices.

The National Education Association places misassignment in perspective when it reports:

> The educators surveyed agree that misassignment limits the quality of public education; further, that the practice is prevalent throughout the United States. However, misassignment is seen as being less crucial than the failure to attract enough academically and personally talented young people to teacher education programs, excessive class size, low salaries for career teachers, or inadequate assistance for new teachers. Of twelve factors which limit quality education, misassignment ranked fifth in importance (NEA, 1965, p. 11).

A survey reported by Ford and Allen showed that:

> Of those misassigned, fifty-nine percent did not have subject matter competence appropriate to the grade level and/or subjects taught, twenty-five percent lacked training in teaching methods appropriate to the grade level and/or subjects taught (Ford and Allen, 1966, p. 41).

The general awareness of misassignment is evident in the writings of Miller who, with tongue in cheek, states:

> Breathes there a teacher, with soul so dead, who never to himself hath said, "What am I doing in this class? This is not my field"--with apologies to Sir Walter Scott (Miller, 1968, p. 213).

This author, in recognizing the problem of misassignment, also acknowledges the fact that teachers in this situation require assistance. He continues:

> In summary, there are methods that a teacher can use if he should be assigned to teach a course

> for which he has no college hours or is temporarily unprepared. Basically, the teacher should broadcast confidence, be very kind, give high grades, and effectively evade all questions that students ask (Miller, 1968, p. 215).

An introduction to misassignment in Alberta was provided by Enns when he stated:

> One of the problems over which we [Faculty of Education] have no control is the misplacement of teachers in terms of their preparation and preference. For example, there seem to be too many secondary education majors teaching in the elementary schools for which they are not prepared. And there are too many teachers, prepared for one content field, assigned to teach in another totally unrelated field (Enns, 1971).

As an example of this latter statement, Enns alludes to the belief that there are enough home economics teachers teaching general secondary level subjects in Edmonton schools to staff all the home economics classrooms in the province.

Secondary school misassignment occurs most often in sciences, English and foreign languages (Ford and Allen, 1966). Rousseau (1970) reports Alberta secondary misassignment occurs most often in English and to a lesser extent, in science, French and mathematics. Vocational subjects had the least teacher misassignment. Rousseau notes the incidence of misassignment was greater among junior high than senior high teachers.

Does this trend continue to the intermediate grades? At what grade level is misassignment most serious in terms

of frequency? At what grade level is misassignment most serious in terms of effects? To what degree does experience offset effects of misassignment? Although some light has been shed on the problem of misassignment in the field of education, little has been reported concerning misassignment in the elementary school.

MISASSIGNMENT AND PROFESSIONALISM: A PARALLEL

It is interesting to note increased attention to misassignment at the same time as increased attention is being given to developing teacher professionalism.

Ratsoy (1970) notes the following improvements in teacher preparation between 1958 and 1969 in the Alberta teaching force. Over the eleven year span Alberta teachers improved their qualifications by over two years in the median number of years of preparation. The number of teachers with one or more degrees increased from approximately twenty-five percent to over fifty percent. The trend will most likely continue as two and one half times the 1958 percentage of teachers intended to return for further training in the fall of 1969 (Ratsoy, 1970).

A recent publication of the Alberta Teachers' Association (1970A) discusses trends in the Alberta teaching force for the year following the period covered by the Ratsoy monograph. For the 1969-70 school year, the average age of the teaching force continued to decrease, the cities

continued to hire an increasing percentage of the more qualified teachers and the percentage of degree teachers throughout the province increased as well.

Robinson (1967) found a significant relationship between teacher professionalization and teacher preparation. To the extent that Robinson's conclusion is valid, the marked improvement in qualifications of Alberta teachers could be taken as evidence of growing teacher professionalism.

Misassignment, by disregarding a teacher's preparation, negates recent improvements made in the number of years of teacher preparation. This view is described by the National Education Association which stated:

> Our most earnest claims to professional status are undermined if anyone can be assigned to teach almost anything; if a history major who has six college credits in chemistry can become a chemistry teacher overnight, or if a high school physical education teacher can take over a second grade classroom without any preparation in the teaching of reading, or if a new teacher who is from a socially and racially homogeneous suburban community and who has a low tolerance for cultural and attitudinal differences is assigned to a school characterized by cultural and racial differences and tensions. Our claims to professional status are undermined if we cannot offer the public reasonable guarantees that their children's teachers are qualified for their assignments (NEA, 1965, p. 6).

The qualifications, and thus the specialization, of Alberta teachers have risen significantly since 1958. In addition, other characteristics of the teaching force have changed as Clarke (1968) states:

> Newcomers are a new breed of cat! Eighteen percent are married to another professional versus four percent for established teachers. A greater percentage want to make a career out of teaching. Sixty-three percent are dissatisfied with the present state of teaching (Clarke, 1968, p. 13).

Byrne (1968) continues:

> The average age of the Canadian teaching force is lowering rapidly which may account for protests against much of current practice. Teachers are becoming more highly qualified and a large proportion of those entering teaching come from the middle and upper classes. Studies of the behavior of such persons forecast an increased drive for full professional status (Byrne, 1968, p. 7).

Clarke (1968) describes his perception of the relation between assignment-misassignment and teacher professionalism as follows:

> The omnicapable, flexible, fit any slot teacher is a vanishing breed. The young turk will teach only mathematics, and perhaps only the new math. He protests vehemently any other assignment and in many instances has extracted a promise of only the desired assignment. 'Work assignment should be determined by preparation and preference' is the attitude of the professional teacher (Clarke, 1968, p. 13).

As a result of the foregoing section we are left with a brief but fascinating glimpse into the complex nature of misassignment. Increased professionalism is being measured in increased qualifications. Increased qualifications usually denote increased specialization which could contribute to better quality teaching if assignment to this field follows. On the other hand, it could contribute to misassignment, particularly at the intermediate level where

teacher specialization has occurred only to a limited extent.

CAUSES OF MISASSIGNMENT

Although misassignment occurs in almost every type of educational setting it is more common in rural schools. Ford and Allen give the following causes for misassignment in rural areas:

> (1) Misassignments occur most frequently because of the shortage of both elementary and secondary teachers. The shortage is caused by low salaries and by the unwillingness of many teachers to leave the advantages of the cities.
> (2) Attempting to offer broad educational programs at the secondary level when they do not have the funds available to hire adequately qualified staff for each subject offered. This means a person prepared to teach social studies may find himself teaching not only social studies but also subjects about which he knows very little.
> (3) Rural districts are doing little or nothing about misassignment unless they are pushed into it by the state department of education (Ford and Allen, 1966, p. 42).

In urban areas, the above causes, may apply in varying degrees as well. In addition Ford and Allen, 1966, give the following as causes of misassignment in urban and suburban settings:

> (1) The shortage of teachers in specific fields.
> (2) Inadequate evaluation of a candidate's teaching credentials at the time of assignment.
> (3) Sudden need to fill positions because of unexpected resignations (Ford and Allen, 1966, p. 42).

In Alberta the teacher shortage gave signs of being

over in 1970. However, caution must be exercised in assuming that misassignment will automatically decrease. If there is in fact a teacher surplus in all teaching fields, this seems to be a reasonable assumption. However, over-supply of one type of teacher coupled with shortages in other fields might actually contribute to an increase in the incidence of misassignment.

EFFECTS OF MISASSIGNMENT

Possible limitations of misassignment on the quality of teaching are given by Lupone (1961) in a study of permanently certified elementary teachers when rated with provisionally certified elementary school teachers who did not meet the educational requirements. Lupone states that his study represented an effort to:

> . . . determine whether the provisionally certified elementary teacher in the first, second and third year of classroom experience is as successful as the permanently certified elementary school teacher in the same years (Lupone, 1961, p. 58).

Permanently certified teachers were rated higher in:

> (a) The ability to organize and plan effectively.
> (b) The skill to translate subject matter into living experience.
> (c) The proficiency in using effectively related materials in classroom instructions.
> (d) An understanding and more sympathetic attitude toward the child.
> (e) The adequate use of such resources as remedial reading teacher, speech therapist, art and music specialists, school nurse, school psychologist in the further understanding of the child (Lupone, 1961, p. 57).

Freehill (1963) emphasizes that the quality of teaching, beyond the crucial minimum of teacher failure is related to academic success and teacher attitudes. Academic qualifications partially determine the ability to manage subject matter. After reviewing the literature, this appears to be of greater importance in highly technical subjects. Teacher attitudes are partially determined by correct assignment (Freehill, 1963). In a discussion of assignment and morale, McPherran (1965) states that personnel perform most effectively and efficiently when their assignments fully utilize their personal assets and aid in fulfilling their aspirations and goals.

Halls (1964) found that the number of hours a teacher had taken in teacher education was significantly related to pupil achievement in paragraph meaning, word meaning and spelling. Language, arithmetic reasoning and arithmetic computation were positively related but not significant. Average gains for pupils taught by fully qualified teachers led in every test area.

The effects of misassignment cited to this point revolve around the most basic of all educational concerns, quality. Misassignment in hampering the effectiveness of teaching lowers the quality of education for our students. There are a number of additional effects related to misassignment. Teacher retention, as well as being related to the quality of education, directly influences recruitment

needs each year. Misassignment could be one of a number of reasons causing a teacher to move. In Alberta, misassignment has been cited as the main reason teachers gave for leaving a system in approximately six percent of the cases and as the second reason, in an additional six percent of the cases (A.T.A., 1970B). Misassignment, through inefficient use of a teacher's talents, shortchanges the taxpayer in terms of return on his investment in education.

A number of recent trends in education could have some foundation in misassignment. Could increasing teacher demands for a voice in such areas as allocation of teaching loads (Simpkins and Friesen, 1969) be due in part to past and present misassignment practices? Differentiated staffing, an outgrowth of the team teaching movement, is a developing concept which could have its roots in past misassignment practices.

RESPONSIBILITY FOR PROPER ASSIGNMENT PRACTICES

The National Education Association suggests:

> The problem of teacher misassignment will not be solved by buck-passing or stone throwing. Casting administrators in the villain's role, calling classroom teachers apathetic or complacent, or scapegoating the state department of education leads to hostility and frustration. Misassignment will yield only to thoughtful, concerted attack by all the agencies and individuals concerned (NEA, 1965, p. 8).

An awareness of misassignment by all concerned with the problem should lead to an examination of assignment and

other personnel practices in the light of present day teaching conditions and changes in the organization of the teaching program. Recognition of the fact that teacher preparation is rapidly becoming a life long process rather than an initial preparation period must also be involved in any serious movement to correct misassignment practices.

SUMMARY

The review of literature has shown widespread concern in misassignment and emphasizes its effect on quality teaching. The extent of misassignment, as well as the causes and effects discussed, reveal the complex nature of the phenomenon and suggest that a wide variety of approaches will probably be required to confront the problem.

In most of the literature, there is only passing reference to misassignment in the elementary grades and very little Canadian information available on all types of misassignment. This project would attempt to contribute to both of these areas.

CHAPTER 3

DESIGN OF THE STUDY

THE QUESTIONNAIRE

The data for this study were obtained from the returns of the 1969 Alberta Teaching Force survey directed by Ratsoy for The Alberta Advisory Committee on Educational Studies.

The questionnaire[1] was circulated in May, 1969, and was completed by 18,074 Alberta teachers, approximately ninety percent of the teaching force. These data were stored on computer tape and formed the basis of 1970 studies by Ratsoy, Reinholt and Rousseau.

Reinholt stated that examination of questionnaire responses indicated the responses were accurate "for about 98 percent of the respondents" (Reinholt, 1970, p. 45). In this study, no accuracy checks were undertaken as data examined were from the same questionnaire but focused on the responses of intermediate grade teachers.

DESCRIPTION OF THE SAMPLE

Personal Characteristics

As presented in Table 1, the sample for this study consisted of 2,824 full-time intermediate grade teachers

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[1] See Appendix A.

which included twenty-three percent male and seventy-seven percent female teachers.

Table 1

Classification of Teachers by Sex

	Male	Female	Totals
f	638	2,167	2,805*
%f	22.7	77.3	100.0

*19 teachers did not complete the item on sex of respondent.

Table 2, a classification of these teachers by sex, marital status and age, indicates that twenty-five percent of the men and twenty-seven percent of the women were single.

Single men accounted for less than six percent of all intermediate teachers and were typically under age thirty-six. Married men were most numerous in the twenty-six to thirty-five year category, with about even distribution in the other three categories and represented 16.6 percent of the sample.

Four-fifths of the single women were thirty-five or younger, although upper age categories showed higher percentages than for the male segment. Married female teachers represented one-half of all intermediate grade teachers, displaying a consistent distribution across the age categories with the highest percentage in the over

Table 2

Classification of Teachers by Sex, Marital Status and Age

		25 or less	26-35	36-45	Over 45	Totals
Single males	f	71	69	9	3	152
	%f	47.7	45.4	5.9	2.0	5.6
Married males	f	83	214	73	81	451
	%f	18.4	47.5	16.2	18.0	16.6
Single females	f	298	124	46	48	516
	%f	57.8	24.0	8.9	9.3	19.0
Married females	f	287	353	248	487	1375
	%f	20.9	25.7	18.0	35.4	50.7
Other	f	8	25	54	130	217
	%f	3.7	11.5	24.9	59.9	8.0
Totals	f	747	785	430	749	2711*
	%f	27.6	29.0	15.9	27.6	100.0

*113 teachers did not complete either the item on sex of the respondent, the item on marital status, or the item on age.

forty-five category.

Small numbers of teachers were widowed, divorced, separated or members of an R.C. religious order and made up only eight percent of the sample. This group is referred to as 'Other' in Table 2. There was a higher percentage of these teachers in each succeeding age category.

Tables 3 and 4 represent an analysis of intermediate teachers by personal characteristics and administrative unit. Table 3 indicates that the largest percentage of single men, married men, and single women were employed by city districts. Only 35.8 percent of married women worked in city districts but in numbers represented almost half of all teachers in these districts. Graphically represented in Figure 1, married women are easily distinguished from the other three groups.

Table 4, reporting the classification of teachers by administrative unit and age, shows a fairly consistent distribution of teachers in the four age categories with the fewest in the thirty-six to forty-five year age group. Typically, city districts had a larger percentage of teachers thirty-five or younger and a smaller percentage of teachers thirty-five or older than the other two types of administrative units.

Academic Preparation

Tables 5 and 6 classify intermediate teachers by years of training after grade twelve. As shown in Table 5,

Table 3

Classification of Teachers by Sex, Marital Status and Type of Administrative Unit

		City Districts	School Division and County	Independent School Districts	Totals
Single males	f	80	71	7	158
	%f	50.6	44.9	4.4	5.6
Married males	f	224	219	18	46.1
	%f	48.6	47.5	3.9	16.6
Single females	f	270	237	22	529
	%f	51.0	44.8	4.2	19.0
Married females	f	504	868	36	1408
	%f	35.8	61.6	2.6	50.7
Other	f	101	113	8	222
	%f	45.5	50.9	3.6	8.0
Totals	f	1179	1508	91	2778*
	%f	42.4	54.3	3.3	100.0

*46 teachers did not complete either the item on sex, the item on marital status, or the item on the type of administrative unit.

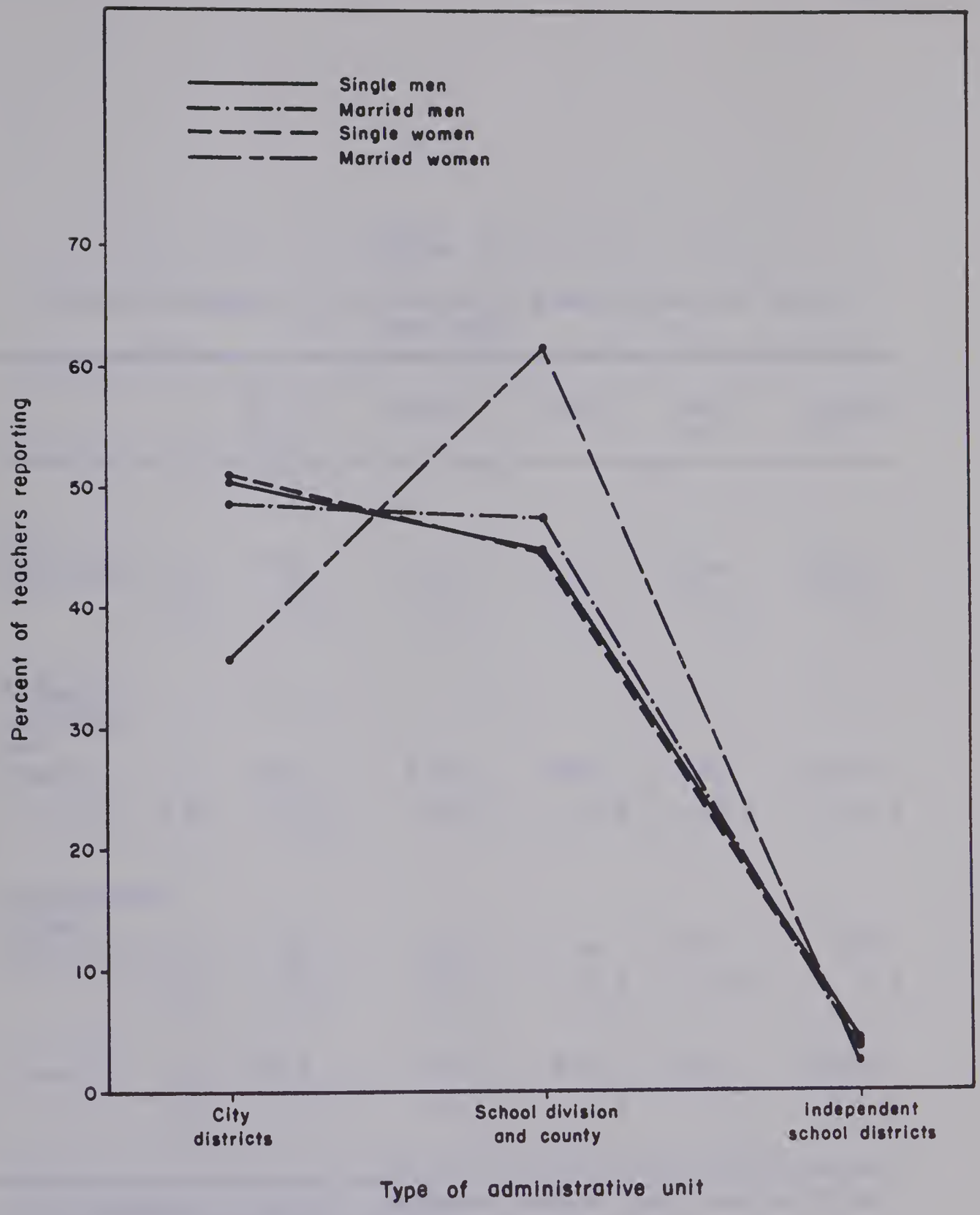


Figure 1

Classification of Teachers by Sex, Marital Status and Type of Administrative Unit

Table 4

Classification of Teachers by Administrative Unit and Age

		25 or less	26-35	36-45	Over 45	Totals
City districts	f	375	372	166	236	1149
	%f	32.6	32.4	14.4	20.5	42.4
School division and county	f	355	373	250	490	1468
	%f	24.2	25.4	17.0	33.4	54.2
Independent school districts	f	20	32	14	24	90
	%f	22.2	35.6	15.6	26.7	3.3
Totals	f	750	777	430	750	2707*
	%f	27.7	28.7	15.9	27.7	100.0

*117 teachers did not complete either the item on type of administrative unit or the item on age.

Table 5

Classification of Teachers by Sex, Marital Status and Years of Training After Grade Twelve

		1 year or less	2 or 3 years	4 years or more	Totals
Single males	f	4	74	81	159
	%f	2.5	46.5	50.9	5.7
Married males	f	35	166	262	463
	%f	7.6	35.9	56.6	16.6
Single females	f	42	291	201	534
	%f	7.9	54.5	37.6	19.1
Married females	f	544	608	265	1417
	%f	38.4	42.9	18.7	50.7
Other	f	88	72	63	223
	%f	39.5	32.3	28.3	8.0
Totals	f	713	1211	872	2796*
	%f	25.5	43.3	31.2	100.0

*28 teachers did not complete either the item on sex, the item on marital status, or the item on years of training after grade twelve.

the greater the number of years of training, the larger the percentage of men in the category. Over fifty percent of all males had four years or more of preparation. Single women were in largest numbers in the two and three years of training category, with thirty-eight percent having four years or more of training. Four-fifths of the married women had less than four years of training. These differing patterns are emphasized in Figure 2.

As is evident in Table 6, upper preparation categories had larger numbers of teachers in both city districts and independent school districts with city districts having a higher proportion of better qualified teachers. Four out of five school division and county teachers had less than four years of training, which seemed to reflect the preparation and location of the larger percentage of married women.

Mobility of Intermediate Teachers

Ratsoy (1970) described the Alberta teaching force as becoming more youthful and marked by approximately a twenty-eight percent annual turn-over rate. These findings seem to be reflected in Table 7, as thirty-seven percent of all intermediate teachers were in their first year in their current school. An additional thirty-five percent had four years or less teaching experience in their current school.

As a group, single men had the highest proportion

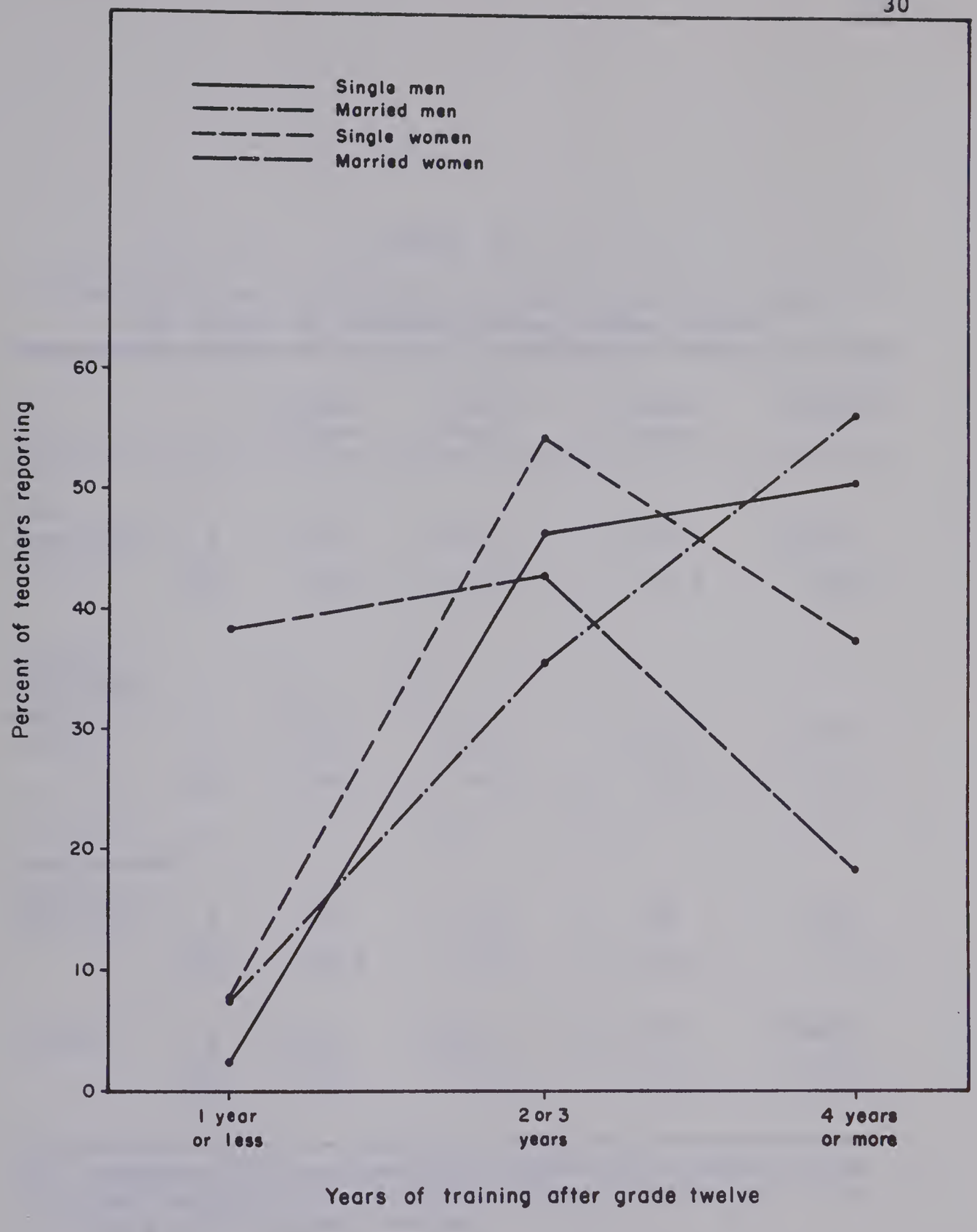


Figure 2

Classification of Teachers by Sex, Marital Status, and Years of Training After Grade Twelve

Table 6

Classification of Teachers by Administrative Unit and Years of Training After Grade Twelve

		1 year or less	2 or 3 years	4 years or more	Totals
City districts	f	170	508	514	1192
	%f	14.3	42.6	43.1	42.5
School division and county	f	528	672	319	1519
	%f	34.8	44.2	21.0	54.2
Independent school districts	f	22	31	39	92
	%f	23.9	33.7	42.4	3.3
Totals	f	720	1211	872	2803*
	%f	25.7	43.2	31.1	100.0

*21 teachers did not complete either the item on type of administrative unit or the item on years of training after grade twelve.

Table 7

Classification of Teachers by Sex, Marital Status and Years of Experience in Present School

		1 year	2 - 4 years	More than 4 years	Totals
Single males	f	97	52	10	159
	%f	61.0	32.7	6.3	5.7
Married males	f	212	184	66	462
	%f	45.9	39.8	14.3	16.6
Single females	f	282	191	59	532
	%f	53.0	35.9	11.1	19.1
Married females	f	392	487	534	1413
	%f	27.7	34.5	37.8	50.7
Other	f	60	67	96	223
	%f	26.9	30.0	43.0	8.0
Totals	f	1043	981	765	2789*
	%f	37.4	35.2	27.4	100.0

*35 teachers did not complete either the item on sex of respondent, the item on marital status, or the item on years of experience in present school.

of its members in their current school for the first time, followed by single women, married men, married women, and finally those who were widowed, divorced, separated, or members of an R.C. religious order. Married men had the greatest representation of any group in the two to four years' experience category, while married women have the greatest representation in the over four year category. These differences are highlighted in Figure 3.

In summary, three-quarters of intermediate teachers had four years of experience or less in their current school. This is slightly higher than Ratsoy (1970) reported for the total teaching force. This has implications for administrators considering staff orientation, in-service, etc., and for misassignment in particular as the literature cites mobility as a factor to be considered in cases of misassignment.

Years of Experience

As presented in Table 8, single men, married men, and married women had similar patterns of experience as the three to nine year category held the largest percentage of teachers for each group. In these cases the three to nine year category had the highest percentage of each group, and decreased in both directions through each category. As shown in Figure 4 however, married women had the smallest percentage of their members in the one and two years of experience category whereas they placed higher percentages

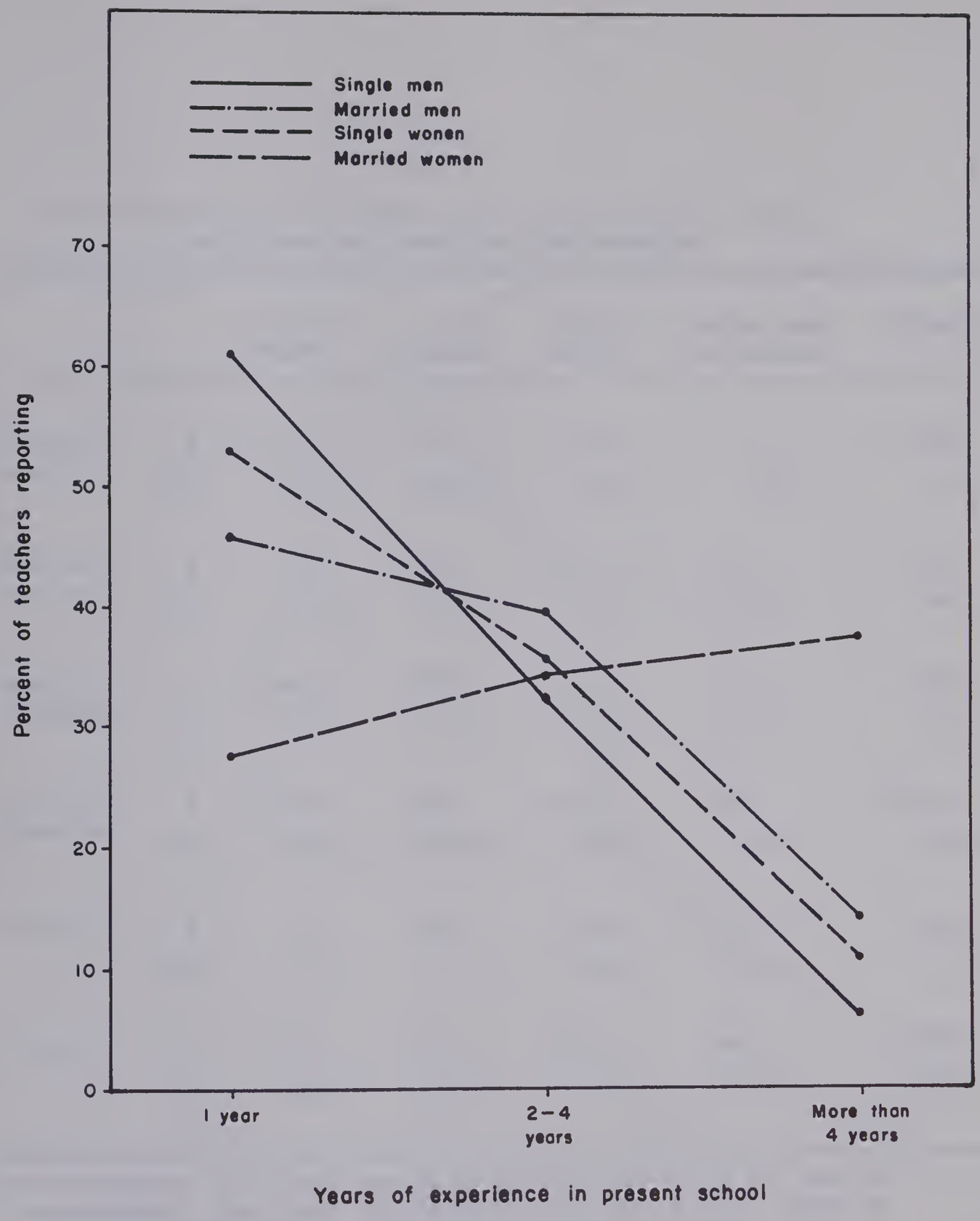


Figure 3

Classification of Teachers by Sex, Marital Status, and Years of Experience in Present School

Table 8

Classification of Teachers by Sex, Marital Status and Years of Teaching Experience

		1 or 2 years	3 - 9 years	10-19 years	More than 19 years	Totals
Single males	f	62	74	19	4	159
	%f	39.0	46.5	11.9	2.5	5.7
Married males	f	94	204	101	63	462
	%f	20.3	44.2	21.9	13.6	16.6
Single females	f	211	200	66	55	532
	%f	39.7	37.6	12.4	10.3	19.1
Married females	f	150	544	455	262	1411
	%f	10.6	38.6	32.2	18.6	50.6
Other	f	8	39	98	79	224
	%f	3.6	17.4	43.8	35.3	8.0
Totals	f	525	1061	739	463	2788*
	%f	18.8	38.1	26.5	16.6	100.0

*36 teachers did not complete either the item on sex of respondent, the item on marital status, or the item on years of teaching experience.

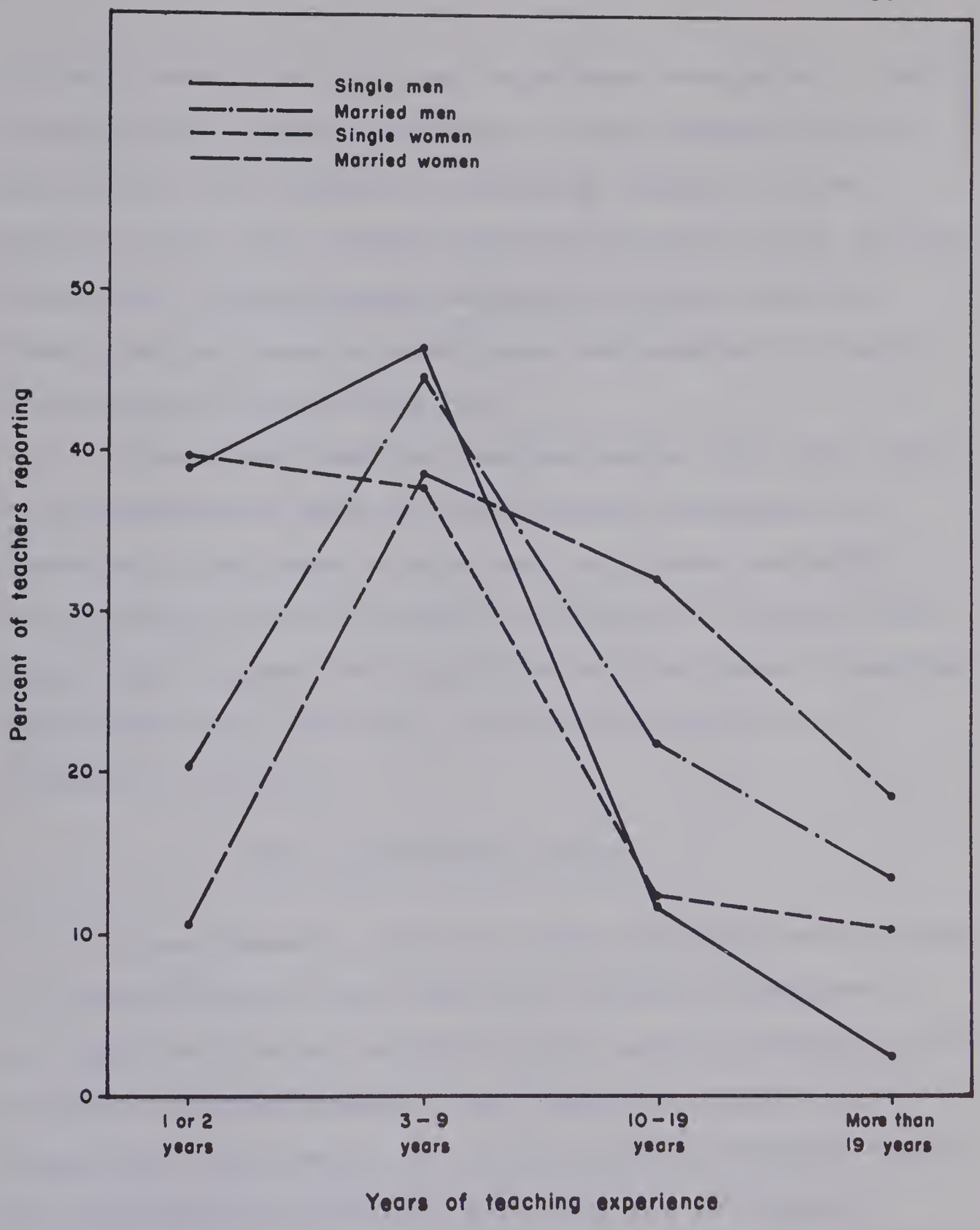


Figure 4

Classification of Teachers by Sex, Marital Status and Years of Teaching Experience

of their members in the upper experience categories. Single women had the highest percentage of their members in the one and two year category, decreasing slightly in the three to nine year category and then falling sharply in the tenth year. Seventy-seven percent of single women had fewer than ten years of experience, as compared to eighty-five percent of the single men.

Consistent with the findings above, all three types of administrative units had the highest percentage of teachers in the three to nine year experience category. City districts had the highest proportion of teachers with fewer than ten years of experience and the lowest proportion of teachers with more than ten years of experience as presented in Table 9.

THE MISASSIGNMENT SCALES

Questionnaire items involving major and minor fields of specialization, major and minor fields of assignment, and teaching area of preference were used to generate three measures of misassignment. The assignment-qualifications scale (M-1) was similar to one developed by Rousseau (1970). The assignment-preference scale (M-1) and the overall assignment-misassignment scale (M-0) were the same as those developed by Rousseau (1970). These scales are described below:

Table 9

Classification of Teachers by Administrative Unit and Years of Teaching Experience

		1 or 2 years	3 - 9 years	10-19 years	More than 19 years	Totals
City districts	f	277	497	251	162	1187
	%f	23.3	41.9	21.1	13.6	42.5
School division and county	f	239	528	460	288	1515
	%f	15.8	34.9	30.4	19.0	54.2
Independent school districts	f	8	38	31	14	91
	%f	8.8	41.8	34.1	15.4	3.3
Totals	f	524	1063	742	464	2793*
	%f	18.8	38.1	26.6	16.6	100.0

*31 teachers did not complete either the item on type of administrative unit or the item on years of teaching experience.

M-1 Scale

Misassignment is expressed in terms of congruity between the teacher area of specialization and the assignment of the teacher. Table 10 explains how this misassignment score was calculated.

Table 10

Misassignment Scale M-1
(Congruity Between Area of Specialization and Area of Assignment)

Description of Assigned Teacher	Score
Teacher assigned strictly to his major area of specialization or a teacher assigned primarily to his major area of specialization, and with a minor assignment in his minor area of specialization	7
Teacher assigned strictly to his minor area of specialization or a teacher assigned primarily to his minor area of specialization, and with a minor assignment in his major area of specialization.	6
Teacher assigned to his major area of specialization with a minor assignment in another field.	5
Teacher assigned primarily to his minor area or specialization with a minor assignment in another field.	4
Teacher assigned to areas other than his major or minor area of specialization with a minor assignment in his major specialization or with a minor assignment in his minor specialization.	3
Teacher assigned to areas other than his major or minor areas of specialization.	1

Note: A score of 7 indicates the highest degree of congruity between teacher area of specialization and teacher assignment.

The M-1 scores, representing all possible combinations of the teacher's major and minor specialization with his major and minor assignment, were calculated in the following manner. When major specialization corresponded to an assignment, a score of two was awarded; when minor specialization corresponded to an assignment, a score of one was awarded. If the teacher's major assignment corresponded to a specialization, a score of two was awarded; if his minor assignment corresponded to a specialization, a score of one was awarded. The addition of these scores for each teacher gave possible values from zero to six, with the exception of the score of one. In order to award all teachers positive scores, each value was increased by one so that for purposes of this study congruity between teacher area of specialization and teacher area of assignment was expressed by M-1 scores which ranged from one to seven, with the score of two not being awarded.

M-2 Scale

Misassignment is expressed in terms of congruity between the teacher area of preference and the assignment of the teacher. Table 11 explains how this misassignment score was calculated.

Table 11

Misassignment Scale M-2
(Congruity Between Area of Preference and Area of Assignment)

Description of Assigned Teacher	Score
Teacher preference is congruent with the assigned field indicated where there is only one area of assignment.	4
Teacher preference is congruent with the major field of assignment, when there was assignment to both a major and a minor field.	3
Teacher preference is congruent with the minor field of assignment, when there was assignment to both a major and a minor field.	2
Teacher preference is not congruent with the major or minor fields of assignment.	1

Note: A score of 4 indicates the highest degree of congruity between teacher preference and teacher assignment.

M-O Scale

Misassignment is expressed in terms of congruity between the teacher area of specialization and the teacher area of preference combined, and the assignment of the teacher. This scale resulted from the summation of the M-1 and M-2 scales.

Testing the Misassignment Scales

The intercorrelation matrix, presented in Table 12, reveals the relationships between each of the three scales.

As expected, high correlations of 0.95 and 0.55 with M-0 for the M-1 and M-2 scores respectively were found. The correlation of 0.27 between the M-1 and M-2 scores suggests that these measures are largely independent of each other, having only 6.3 percent of the variance in common.

Table 12

Pearson Correlation Coefficients between Misassignment Scales

	M-2	M-0
M-1	0.27	0.95
M-2	--	0.55

Means and standard deviations for the sample used in this study on each of the three scales are shown in Table 13. The M-1 scale, with a range in possible scores of 1 to 7, had a mean for the sample of 3.90 and a standard deviation of 2.16. The M-2 scale, with scores ranging from 1 to 4, had a mean for the sample of 1.48 with a standard deviation of 0.77. This finding, described in greater detail in Chapter Four, is significant for the understanding of the current level of misassignment of intermediate grade teachers in Alberta. The M-0 scale, with scores ranging from 2 to 11, had a mean for the sample of 5.38 and a standard deviation of 2.47.

Table 13

Means and Standard Deviations of the Misassignment Scales[1]

	M-1	M-2	M-O
Mean	3.90	1.48	5.38
S.D.	2.16	0.77	2.47

[1]N = 2824 teachers

Bivariate Frequency Distributions

Bivariate frequency distributions for pairs of misassignment scales were plotted according to the outline presented in Table 14, in an attempt to give greater meaning to the Pearson correlation coefficient between pairs of scores achieved by teachers on the three misassignment scales (Table 12, p. 42). Scores of 4 for the M-1 scale, 2 for M-2 scale, and 5 for the M-O scale were established as minimum satisfactory misassignment scores when each scale was used as the criterion variable.

Figures 9 and 10, Appendix B, describe the four quadrants of the bivariate frequency distribution and present a specific example of its application.

Table 14

Bivariate Frequency Distributions Examined and the Location of the Results in the Appendices

Predictor	Criterion		
	M-1	M-2	M-O
M-1	--	Table 29	Table 29
M-2	Table 30	--	Table 30
M-O	Table 31	Table 32	--

Findings. As this section of the study was primarily concerned with the prediction of misassignment scores, only a summary of the total findings is presented here. The detailed bivariate frequency distributions, useful in understanding the nature of the distribution of misassignment scores, are presented in Tables 29 to 32, Appendix B.

As shown in Table 29, when using the various M-1 scores as the predictor variables the proportion of correct classifications ranged from thirty-three percent to seventy-four percent for M-2 scores and between sixty-one to eighty-eight percent for M-O scores. With M-2 scores as the predictor variable, the proportion of correct classifications would range from fifty-three to fifty-eight percent for M-1 scores and from forty-five to sixty-seven percent for M-O scores as shown in Table 30.

Tables 31 and 32, Appendix B, report the

proportions of correct classifications using M-0 scores as the predictor variable. As shown in Table 31, the proportion of correct classifications in predicting M-1 scores from individual M-0 scores, varied from fifty-four percent to eighty-eight percent. The prediction of M-2 scores from individual M-0 scores, as reported in Table 32, resulted in a variation of correct classifications ranging from thirty-three percent to seventy-seven percent.

THE VARIETY OF PRACTICES RATIO SCALES

Three variety of practices ratio scales were developed by Reinholt (1970) in an investigation of the instructional practices used by junior high school teachers in Alberta. These scales were used in the examination of one of the seven sub-problems of this study and are described below:

VP_1

Questionnaire items on instructional resources available which included use of clerical personnel, teacher aides, consultative personnel, guidance counsellors, libraries, and instructional materials centres were examined for each of the 2,824 teachers.

If four or more of these resources were available (R.A.), an instructional resources score (I.R.) was calculated based on the use of each resource. A resource not used, or used only once or twice a year was awarded a

score of zero. A resource used three to ten times was awarded a score of one, while the use of any resource more than ten times during the year was given the maximum of two. The I.R. score was obtained by summing the scores obtained for each resource available (R.A.).

To adjust for varying numbers of resources available between schools, a ratio score was calculated for each teacher in the following manner:

$$VP_1 = \frac{I.R.}{2 \times R.A.} \times 100$$

$\underline{VP_2}$

A second scale developed by Reinholt (1970) utilized questionnaire items on organizational practices which included the use of intraclass ability grouping, intraclass small groups, project method, and team teaching. All teachers assigned a VP_1 score, were also assigned a VP_2 score which was calculated in the following manner.

An organizational practices score (O.P.) was calculated, based on the use of each of the four organizational practices. Where a practice was not used, or used only once or twice in the year, a score of zero was awarded. If the practice was employed three to ten times during the year a score of one was awarded, and any use above ten times was given a score of two. The O.P. score for a given teacher was obtained by summing the scores for each organizational practice.

The variety of organizational practice ratio score was calculated as follows:

$$VP_2 = \frac{O.P.}{8} \times 100$$

VP_T

This score represented a combined score based on all ten practices used in the calculation of VP_1 and VP_2. This ratio score was calculated as follows:

$$VP_T = \frac{I.R. + O.P.}{2\ (R.A. + 4)} \times 100$$

Testing the Variety of Practices Scales

A matrix of intercorrelations between pairs of teacher scores on the three scales is presented in Table 15. Correlations of 0.72 and 0.88 with VP_T for VP_1 and VP_2 scores respectively were found. As VP_T includes all items used to calculate VP_1 and VP_2, this is not surprising. A correlation of 0.30 between VP_1 and VP_2 was considered as evidence of the independence of the scale. The two scales had only 9 percent of their variance in common.

Table 15

Pearson Correlation Coefficients between Variety of Practices Scales

	VP_2	VP_T
VP_1	0.30	0.72
VP_2	--	0.88

Variety of Practices Scores Examined

Although not directly related to this misassignment study, a brief examination of the variety of practices scores was undertaken to place the intermediate teaching situation in perpsective.

The finding that forty-two percent of the sample had half or fewer than half of the resources available in their schools indicated that a high proportion of the teachers at the intermediate level were working in situations with comparatively limited physical and human resources. Secondly, nineteen percent of the original city district teachers, fifty-two percent of the school division, county and rural teachers, and seventy-eight percent of teachers in independent school districts were eliminated by this restriction reflecting a wide variation in educational resources available among types of administrative units.

Finally, intermediate teachers had a considerably lower mean score, 25.8, than junior high school teachers on the variety of instructional practices scale which indicated that the intermediate classroom relies less on outside resources. Intermediate teachers however, obtained a higher mean score, 46.7, on the variety of organizational practices scale indicating greater flexibility within the intermediate classroom in grouping procedures and the use of individual student projects.

METHODOLOGY

Procedure

A computer program was developed to select from the 18,074 respondents to the 1969 A.A.C.E.S. questionnaire, the 3,043 full-time intermediate grade teachers. From this population, only those teachers who had completed all items necessary to calculate misassignment scores (items 18, 21, 23, 26 and 29) were chosen. This resulted in a reduction of the sample to 2,824 teachers.

Misassignment scores were calculated for all 2,824 teachers. Of this number, 1,630 teachers had four or more instructional resources available in their schools. For each of these 1,630 teachers, variety of practices ratio scores were calculated. Each of the remaining 1,194 teachers were not assigned a variety of practices ratio score. Instead they were given a score of minus one which permitted their identification and separation from the sample for certain analyses.

The misassignment scores, variety of practices ratio scores and the fifty-nine questionnaire responses for each of the 2,824 teachers were then transferred to a second computer tape.

A print out of the new tape was made to permit hand checking on the correctness of the programs used to calculate the three misassignment scales and the three variety of practice scales. An intercorrelation matrix for

the six sets of scale scores provided the data needed to examine the independence of each of the scales from the others.

This new tape was the source of data for the tables used in describing the sample and for the analysis of variance tests. For the multiple linear regression analysis in which misassignment scores were used as criterion variables, the variety of practices ratios and selected variables for the 1,630 teachers involved were transferred to disk to permit ease of access.

Statistical Treatment

The statistical treatment of the data for this study relied foremost on the Analysis of Variance technique as proposed by Ferguson (1966). Analysis of Variance was usually applied to four sub-groups of a variable. When only two groups were used in the analysis, the *t*-test was employed on a number of occasions. The *a priori* level of significance was set at .05 for the probability of the F-ratio and the t value. Following the analysis of variance the Scheffé test was used for making comparisons between pairs of sub-groups of a variable whenever the F-ratio was found to be significant.

The Scheffé test, according to Ferguson (1966), is easy to apply, has no special problems when dealing with groups of unequal size, is more rigorous than other multiple comparison methods and will lead to fewer significant

differences. Ferguson continues:

> Concern may attach to the fact that the Scheffé procedure is more rigorous than other procedures, and will lead to fewer significant results. Because this is so, the investigator may choose to employ a less rigorous significance level in using the Scheffé procedure; that is, the .10 level may be used instead of the .05 level. This is Scheffé's recommendation (Ferguson, 1966, p. 297).

The a priori level of significance was set at 0.1 when using the Scheffé procedure. Ferguson (1966) sets limits for this when he states, "reasonable departures from the assumptions of normality and homogeneity may occur without seriously affecting the validity of the inferences drawn from the data" (Ferguson, 1966, p. 295).

Where departures do occur, results appear more significant than they are. "Consequently, where a fairly gross departure from normality occurs, a somewhat more rigorous level of confidence than usual may be employed" (Ferguson, 1966, p. 294). Also, where marked heterogeneity in variances is experienced using the analysis of variance technique, ". . . it is desirable to allow for the discrepancy by setting a slightly higher 'apparent' level of significance than one would otherwise employ" (Lindquist, 1953, p. 83). As a result, if these conditions were encountered the .05 level of significance would be employed for the Scheffé test. Where differences between pairs fell below .05 and 0.1, as the case may be, the means were assumed to be significantly different.

One analysis was conducted using multiple linear

regression. The a priori level of significance was set at .05. If the probability for the F-ratio was below the .05 level, a significant relationship was assumed.

SUMMARY

The data for this study were obtained from the data gathered in the 1969 A.A.C.E.S. study of the Alberta teaching force. The present study was limited to the 3,043 full-time intermediate teachers in Alberta schools. The final sample was established at 1,630 teachers when teachers who did not complete items necessary to calculate misassignment scores and teachers who had fewer than four instructional resources available were eliminated from the study.

A detailed description of the sample was also presented in the chapter. Teachers were classified according to the personal characteristics: age, sex, and marital status, and according to the type of administrative unit in which they were employed. Academic preparation, years of experience in their present scool and years of teaching experience were also used as bases for classification.

The three types of misassignment scales and three types of instructional practices ratio scales were described in detail, and means, standard deviations and intercorrelations between scale scores were reported.

The last part of the chapter described the methodology employed in the study and included a section which described the statistical treatment of the data.

CHAPTER 4

ANALYSIS OF THE DATA

INTRODUCTION

The analysis of data presented in this chapter is reported in two sections. First, to place the extent of misassignment at the intermediate level in perspective, the distribution of misassignment scores is examined and comparisons made between misassignment of intermediate and secondary teachers. This section presents findings related to the analysis of sub-problems one and two. The second section reports findings more directly related to the purpose of the study which was to establish factors related to misassignment at the intermediate level. This section presents findings related to the analysis of sub-problems three to seven. Degree of subject-matter specialization of the teacher, type of administrative unit in which the teacher is employed, sex and marital status of the teacher, teacher activity during the previous school year and intended activity during the following year, and teacher use of instructional and organizational practices are investigated for their possible relationship to misassignment.

THE EXTENT OF MISASSIGNMENT

Findings on Frequency of Misassignment Scores

M-1. Intermediate grade misassignment, as measured

by specialization-assignment, is presented in Table 16. Eighteen percent of the teachers were awarded a score of seven, which represented the highest degree of congruity between specialization and assignment. This indicated the teacher's assignment was in his major specialization, or where a minor assignment was present the teacher was assigned mainly to his major specialization and the minor assignment was in the teacher's area of minor specialization. Three percent reported that they were assigned strictly to their minor area of specialization and were awarded a score of six. Twenty-eight percent of the teachers were awarded a score of five, which indicated congruence strictly between major field of assignment and their major field of specialization with a minor assignment in another field. Approximately forty-three percent were awarded a score less than four which indicated, at best, congruence between specialization and minor assignment and at the extreme no congruence between assignment and major or minor areas of specialization.

Table 16

Frequency Distribution of Misassignment Scores Based on Specialization-Assignment (M-1)

Misassignment score	f	%f
7	522	18.5
6	78	2.8
5	783	27.7
4	212	7.5
3	456	16.1
1	773	27.4
N = 2,824		% Total = 100.0

M-2. The distribution of preference-assignment scores is given in Table 17. The lack of congruence between teacher assignment and teacher preference was pronounced. Only thirty-one percent of intermediate teachers reported a congruity between their preference and their major or minor assignment. This included a small number of teachers awarded a score of four indicating the highest degree of congruence between the teacher's preference and assignment.

Table 17

Frequency Distribution of Misassignment Scores Based on Preference-Assignment (M-2)

Misassignment score	f	%f
4	15	0.5
3	451	16.0
2	409	14.5
1	1949	69.0
N = 2,824		% Total = 100.0

The majority of the thirty-one percent of these teachers were awarded scores of three and two. A score of three represented congruence between major assignment and preference when there was assignment to both a major and a minor field. A score of two represented congruence between minor assignment and preference when there was both a major and a minor assignment. Sixty-nine percent of intermediate

teachers were awarded the minimum score of one, which indicated their preference did not correspond to either their major or minor fields of assignment.

M-O. As presented in Table 18, the scores for overall misassignment, incorporating both preference and specialization, indicated at best a mediocre matching of specialization, preference and assignment. Scores of nine, ten, and eleven, representing the highest degrees of congruity between specialization, preference and assignment, were awarded to approximately eight percent of the 2,824 teachers. Scores of four to eight were awarded to no less than sixty-six percent of the intermediate teachers. Significantly twenty-four percent of the teachers in this study were awarded a score of two. This indicated that the major and minor assignments of one in four teachers were not congruent with either their preference or their major and minor specialization.

Table 18

Frequency Distribution of Overall Misassignment Scores (M-O)

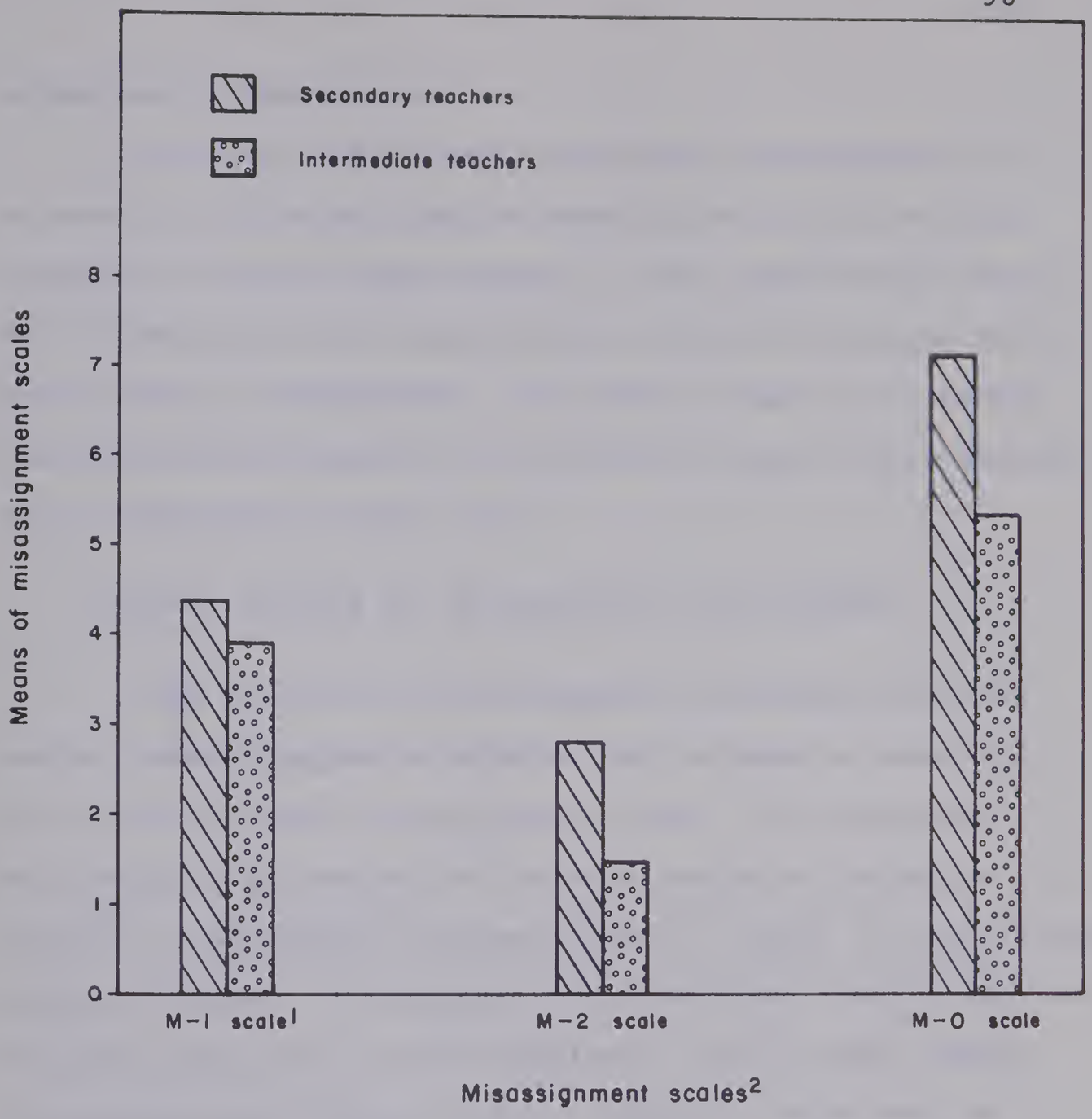
Misassignment score	f	%f
11	10	0.4
10	141	5.0
9	71	2.5
8	531	18.8
7	173	6.1
6	551	19.5
5	292	10.3
4	326	11.5
3	60	2.1
2	669	23.7
N = 2,824	% Total	= 100.0

Intermediate Misassignment in Perspective. Figure 5 presents the mean scores for the three scales which were obtained by secondary teachers (Rousseau, 1970) compared with those obtained by the intermediate grade teachers in this study. On all three scales, scores for the intermediate level were lower indicating a higher incidence of misassignment at this level.

Discussion

The data on misassignment among intermediate grade teachers appear to indicate that there is a low congruence between field of specialization and field of assignment and a very low congruence between preference and assignment. In all three scales the mean scores for the intermediate grade teachers were lower than those reported by Rousseau (1970) for secondary teachers (junior and senior high teachers) in spite of the fact that the M-1 scale used for this study had a maximum possible score of seven rather than six.

Both of these findings were as expected. A 1969 survey of the Alberta teaching force (Ratsoy, 1970) indicated there were 3,688 educators with their main responsibility in grades four to six. Of all Alberta educators, 1,597 reported they felt most adequately prepared to teach grades four to six, while 1,640 stated they preferred to teach grades four to six. This large discrepancy between the number of intermediate positions and the number who felt properly assigned at these grade levels gave prior indication of possible



[1]The 1970 M-1 was based on a scale of 1-6, the 1971 M-1 was based on a scale of 1-7 with a score of 2 not awarded.

[2]Higher scores denote less misassignment.

Figure 5

Comparison of Means of Secondary Teacher Misassignment Scores and Intermediate Teacher Misassignment Scores

widespread misassignment.

Rousseau (1970) noted increased misassignment as he moved in his study from an examination of senior high teachers to junior high teachers. Less departmentalization and a more generalist rather than specialist teaching force were given as explanations. The trend toward an increased incidence misassignment with decreasing grade levels appears to be supported by this study.

FACTORS RELATED TO INTERMEDIATE MISASSIGNMENT

The previous section examined the extent of intermediate misassignment in Alberta and included a comparison to a 1970 secondary misassignment study. The remainder of this chapter is devoted to the examination of variables for possible relationship to misassignment. Tests of significance, namely, analysis of variance, the t-test and the Scheffé test form the major part of this analysis. To a lesser degree correlation and multiple linear regression were used as well.

Findings on Degree of Specialization and Misassignment

For purposes of this study a specialist was defined as a full-time intermediate teacher teaching more than fifty percent of the time in one subject area.

As shown in Table 19, classification of teachers by degree of specialization and misassignment produced differences significant beyond the .001 level. Alberta

specialist teachers obtained a mean score of 4.56, compared to the generalists' score of 3.83 when the congruity between field of specialization and field of assignment were considered. Specialists obtained a mean score of 2.26 while generalists obtained a mean score of 1.39 when preference and field of assignment were considered. On the overall assignment-misassignment scale, M-O, specialists obtained a score of 6.82 compared to 5.22 for generalist teachers. Thus, by all three measures, specialists ranked higher than generalists indicating a higher congruence for specialists between their field of assignment, and their fields of preference and specialization.

Table 19

Tests of Significance on Misassignment Scores of Generalist and Specialist Teachers

		M-1 Scale		M-2 Scale		M-O Scale	
Group	N	Means	Rank	Means	Rank	Means	Rank
A. Generalist	2523	3.83	2	1.39	2	5.22	2
B. Specialist	289	4.56	1	2.26	1	6.82	1
Total	2812*	3.90		1.48		5.38	
t		5.5		19.2		10.6	
Significance		.001		.001		.001	

*12 respondents who listed "other" for questionnaire item 23 were omitted from this t test.

Discussion

These findings indicate a much closer relationship between specialists' major field of university course work and their field of assignment than that recorded for generalist teachers in the study. Even more significant, however, is the difference in mean scores obtained by the two groups on the assignment-preference scale. Intermediate grade specialist teachers reported a higher congruity between their field of preference and their field of assignment than did generalist teachers. This finding parallels the findings of Table 17, and would appear to suggest that intermediate grade teachers prefer to be subject specialists.

Findings on Sex, Marital Status and Misassignment

As shown in Table 20 for the two scales M-1 and M-0, differences significant beyond the .001 level were found when mean scores of the four categories, based on sex and marital status, were compared. No differences were identified for the M-2 scale.

The Scheffé comparison of means test for pairs of groups revealed the married women scored significantly higher than the other three groups on the M-1 and the M-0 scales. No differences between pairs for the remaining three groups were identified.

Table 20

Tests of Significance Among Groups of Teachers Based on Sex and Marital Status and Misassignment

Group	N	M-1 Scale Means	M-1 Scale Rank	M-2 Scale Means	M-2 Scale Rank	M-0 Scale Means	M-0 Scale Rank
A. Single male	159	3.57	3	1.52	1	5.09	2
B. Married male	463	3.36	4	1.52	2	4.87	4
C. Single female	534	3.59	2	1.44	4	5.03	3
D. Married female	1417	4.23	1	1.47	3	5.70	1
Total	2573*	3.90		1.41		5.38	
F		26.9		0.98		19.4	
Significance		.001		N.S.		.001	
Significance by Different Pairs		A-D, B-D, C-D.		--		A-D, B-D, C-D.	

Discussion

The overall result that married women had the highest mean score on the overall misassignment scale (M-0) appears to be consistent with the findings and discussion on misassignment in the various types of administrative units examined. Scores obtained on the assignment-preference scale, which indicated little or no difference in the preference of Alberta teachers when classified by sex and marital status, would seem to be

partly a result of the low congruity between preference and assignment of intermediate teachers shown in Table 17, page 55.

Findings on Misassignment Scores by Administrative Unit

M-1. Table 21, graphically represented in Figure 6, reveals that a greater percentage of teachers in city districts were awarded lower M-1 scores than non-city teachers. School division and county areas had higher percentages of their teachers in the upper score categories. Independent school districts, with the greatest percentage of teachers on the minimum score, had the fewest teachers with scores of 3 and 4 and percentages similar to the other types of administrative units in upper categories.

M-2. As shown in Table 22, Independent School Districts had the highest percentage of teachers with the minimum score of one and the lowest percentage in the other categories. City Districts held a middle position on the distribution of all four M-2 scores while School Division and County teachers were assigned a score of one the least frequently and placed the highest percentage of teachers in the other score categories. These findings however must be considered in the context of Figure 7 which reflects the low overall nature of the M-2 scores.

M-O. Table 23 reflects the pattern established in

Table 21

Classification of Teachers by Administrative Unit and Misassignment Scores Based on Specialization-Assignment (M-1)

M-1 Scores		City Districts	School Division and County	Independent School Districts	Totals
1	f	376	351	36	763
	%f	31.5	23.1	39.1	27.2
3	f	213	230	11	454
	%f	17.9	15.1	12.0	16.2
4	f	91	116	5	212
	%f	7.6	7.6	5.4	7.6
5	f	285	472	23	780
	%f	23.9	31.1	25.0	27.8
6	f	31	42	3	76
	%f	2.6	2.8	3.3	2.7
7	f	197	308	14	519
	%f	16.5	20.3	15.2	18.5
Totals	f	1193	1519	92	2804*
	%f	42.5	54.2	3.3	100.0

*20 respondents did not complete the item on type of administrative unit (N = 2824).

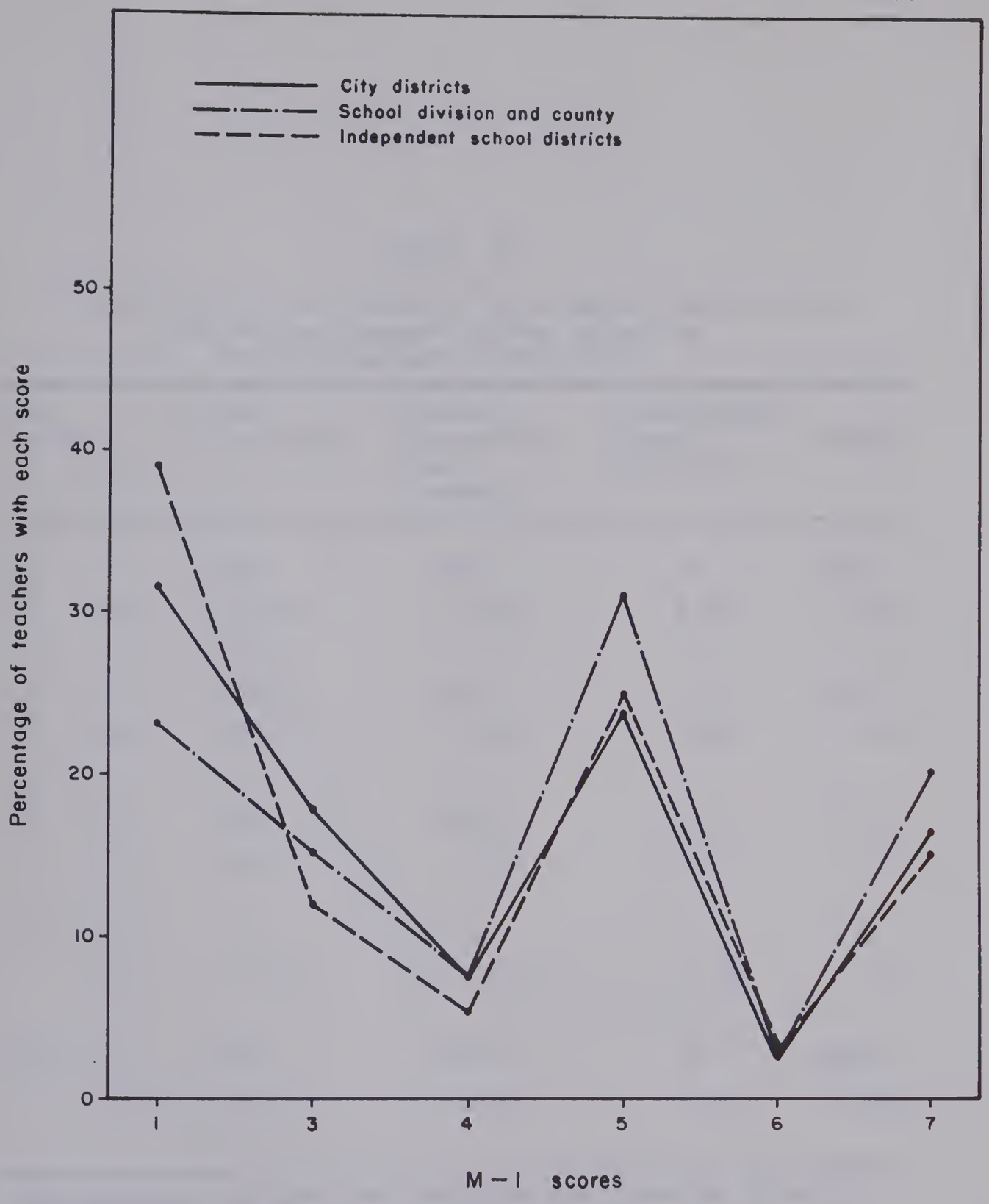


Figure 6

Percentage Frequency Distribution of Teachers by Administrative Unit and Misassignment Scores based on Specialization-Assignment (M-1)

Table 22

Classification of Teachers by Administrative Unit and Misassignment Scores Based on Preference-Assignment (M-2)

M-2 Scores		City Districts	School Division and County	Independent School Districts	Totals
1	f	865	993	76	1934
	%f	72.5	65.4	82.6	69.0
2	f	175	227	6	408
	%f	14.7	14.9	6.5	14.6
3	f	148	289	10	447
	%f	12.4	19.0	10.9	15.9
4	f	5	10	0	15
	%f	0.4	0.7	0.0	0.5
Totals	f	1193	1519	92	2804
	%f	42.5	54.2	3.3	100.0

*20 respondents did not complete the item on type of administrative unit (N = 2824).

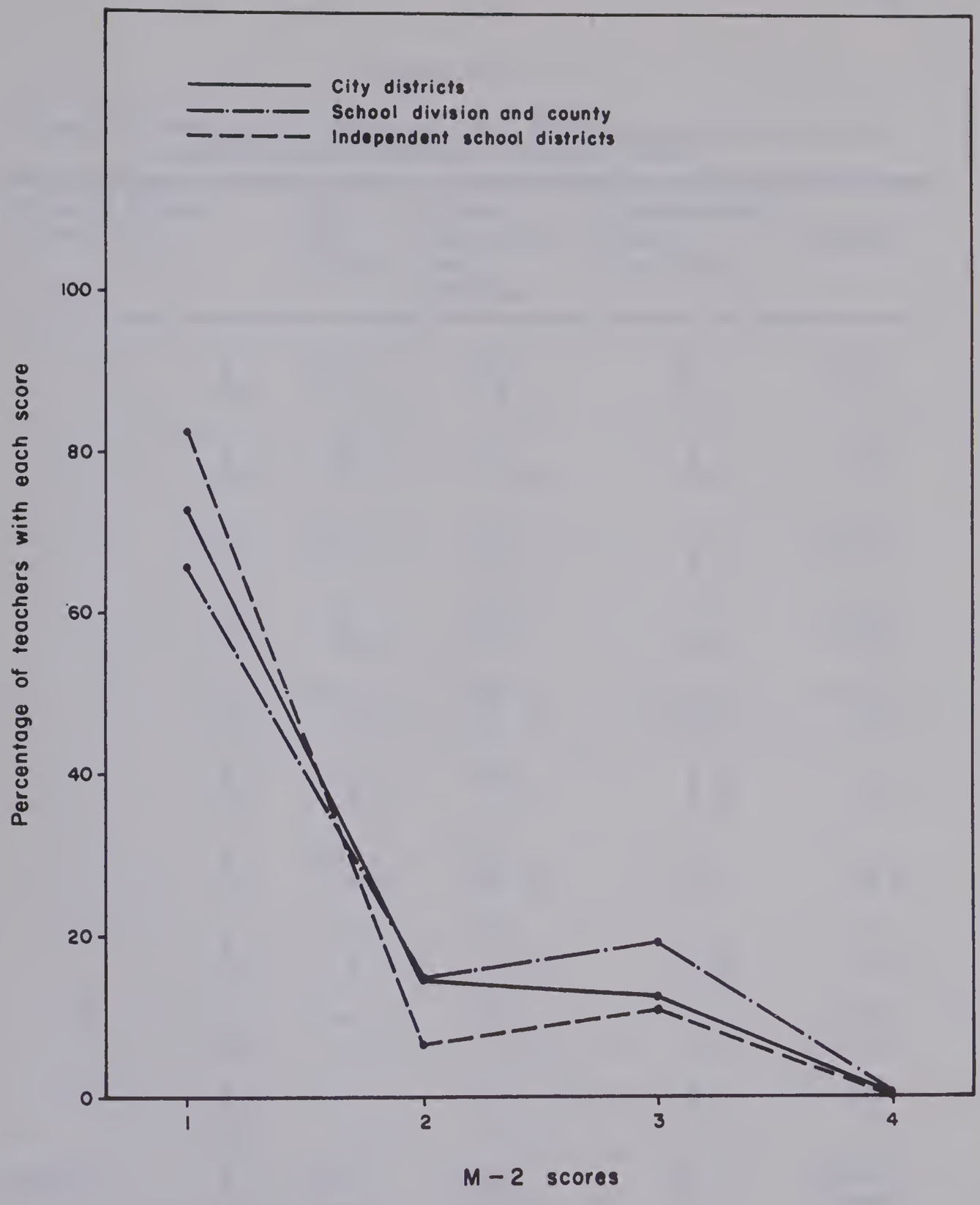


Figure 7

Percentage Frequency Distribution of Teachers by Administrative Unit and Misassignment Scores based on Preference-Assignment (M-2)

Table 23

Classification of Teachers by Administrative Unit and Overall Misassignment Scores (M-O)

Misassignment Score M-O*		City Districts	School Division and County	Independent School Districts	Totals
2	f	337	287	35	659
	%f	28.2	18.9	38.0	23.5
3	f	25	35	0	60
	%f	2.1	2.3	0.0	2.1
4	f	139	177	9	325
	%f	11.7	11.7	9.8	11.6
5	f	146	142	3	291
	%f	12.2	9.3	3.3	10.4
6	f	210	317	21	548
	%f	17.6	20.9	22.8	19.5
7	f	63	102	7	172
	%f	5.3	6.7	7.6	6.1
8	f	201	317	13	531
	%f	16.8	20.9	14.1	18.9
9	f	21	47	2	70
	%f	1.8	3.1	2.2	2.5
10	f	46	90	2	138
	%f	3.9	5.9	2.2	4.9
11	f	5	5	0	10
	%f	0.4	0.3	0.0	0.4
Totals	f	1193	1519	92	2804**
	%f	42.5	54.2	3.3	100.0

*The M-O scale is a combination of the M-1 and M-2 scales and therefore has a minimum scale of 2.

**20 respondents did not complete the item on type of administrative unit (N = 2824).

Tables 21 and 22. Forty percent of all teachers were assigned a score less than five, with teachers in independent school districts having the highest percentage in the lowest score category. For scores of seven and above, school division and county teachers were the group with the highest percentage in these score categories.

Additional Analysis. The findings described above indicated that School Division and County teachers were awarded higher scores than city teachers. To further investigate this finding a t-test was conducted. As presented in Table 24, a significant difference between the two groups was established as School Division and County teachers obtained significantly higher mean scores on all three scales.

Discussion

The overall result that the large rural units of school administration, namely school divisions and counties, placed a greater percentage of teachers in the upper assignment score categories was surprising as this indicated higher congruence between their preference, specialization and assignment than the level established for city teachers. For an explanation, the nature of the Alberta teaching force at this level was examined more closely.

City districts typically employed greater

Table 24

Tests of Significance Among Groups of Teachers Based on Administrative Unit and Misassignment

Group	N	M-1 Scale Means	M-1 Scale Rank	M-2 Scale Means	M-2 Scale Rank	M-0 Scale Means	M-0 Scale Rank
A. City	1193	3.66	2	1.40	2	5.07	2
B. School Division and County	1519	4.12	1	1.55	1	5.68	1
Total	2712*	3.92		1.49		5.41	
t		5.6		4.7		6.5	
Significance		.001		.001		.001	

*This t test did not include 92 respondents teaching in independent school districts and 20 respondents who did not complete this item.

percentages of single men and women as well as married men, significantly these were the same three groups that had spent the fewest number of years in their present school. In addition, city districts employed greater percentages of young teachers. Previous studies have shown both of these factors to contribute to higher levels of misassignment.

A further consideration could be the qualification of the two groups. Typically the teacher in the city district was better qualified. Increased competence within a subject field could account for an increased specialist role preference as a result of increased familiarity with

particular disciplines.

The less mobile non-city teachers, typically, were older than their city counterparts, and therefore had more opportunity over the additional number of years to take further professional preparation with the nature of their specific assignments in mind. With increased experience these teachers would have had greater opportunity to move into the area they preferred or were most adequately prepared to teach. As well, for the more experienced teacher of the School Division and County, the role of the intermediate generalist teacher would be more familiar, and perhaps more acceptable.

While considering this rural-urban misassignment difference it must be borne in mind however that misassignment was high in both areas.

Findings on Mobility and Misassignment

Teacher mobility is often mentioned in the literature as a factor related to the misassignment of teachers as the initial assignment of a teacher is often less than ideal for both the teacher and the employing school board. The literature also suggests that misassignment could be a factor in the teacher leaving the employ of a school board. To examine these positions in terms of the intermediate grade teaching force the two following sets of analyses were undertaken.

Findings Related to Activity During the Previous Year. As presented in Table 25, misassignment scores for four categories of teachers, namely, teachers who were teaching elsewhere or occupied a non-teaching position, teachers attending university, teachers who occupied positions outside of education, and teachers who were teaching in their present system were compared. Significant differences between the group who had been attending university the previous year and teachers who were teaching elsewhere or occupied a non-teaching position and teachers teaching in their present system were identified when means were compared two at a time using the Scheffé Multiple Comparison of Means test. Teachers who had been attending university the previous year were the group with the lowest scores, indicating the highest incidence of misassignment on the overall assignment-misassignment scale, M-0. The mean score obtained by this group was 4.86. The group of teachers who had continued to teach in the same system had the highest mean score, 5.51, of the four groups examined with the overall assignment-misassignment scale.

A similar ranking of mean scores was obtained for the M-1 scale of specialization-assignment. Two of the comparisons between pairs using the Scheffé method were found to be significant. Both involved teachers who had attended university during the previous year. Scores for this group were significantly lower than the scores for the group who were

Table 25

Tests of Significance Among Groups of Teachers Based on Their Activity during the Previous School Year and by Misassignment

Group	N	M-1 Scale Means	M-1 Scale Rank	M-2 Scale Means	M-2 Scale Rank	M-O Scale Means	M-O Scale Rank
A. Teaching Elsewhere or a non teaching position	350	3.77	3	1.46	3	5.23	3
B. Attending University	362	3.36	4	1.50	1	4.86	4
C. Outside Education	144	3.83	2	1.46	4	5.28	2
D. Teaching in this System	1942	4.03	1	1.48	2	5.51	1
Total	2798*	3.90		1.48		5.38	
F		10.52		0.19		7.76	
Significance		.001		N.S.		.001	
Significance by Different Pairs		A-B, B-D.				B-D	

*26 respondents did not complete the item on their activity the previous year.

teaching elsewhere or in a non-teaching position and the group who continued to teach in the same system. No significant differences between groups were identified for the M-2 scale.

Discussion

Length of service in a system is frequently mentioned in the literature as a factor related to misassignment as newer teachers are more frequently misassigned. The findings presented above tend to confirm this.

The finding that teachers who remained in their present system obtained the highest mean score was expected as these teachers have opportunities from one year to the next to obtain what they consider to be a satisfactory assignment and due to the relative permanence of that assignment further professional preparation would probably reflect their assignment.

The lack of significant differences between groups on the preference-assignment scale is not surprising in view of the strong preference expressed by all Alberta intermediate teachers for a specialist, rather than the more typical generalist role which most of them occupy at present. This preference was reflected in the low overall scores on this scale.

Findings Related to Anticipated Activity During the Following Year. The overall pattern between the teacher's planned activity for the following year and misassignment is presented in Table 26. Scores on the overall assignment-misassignment scale indicated that teachers who intended to remain in the same system the next year had the highest mean score of all groups although no

Table 26

Tests of Significance Among Groups of Teachers Based on Their Planned Activity for the Next School Year and by Misassignment

Group	N	M-1 Scale Means	M-1 Scale Rank	M-2 Scale Means	M-2 Scale Rank	M-0 Scale Means	M-0 Scale Rank
A. Teaching Elsewhere or in a non teaching position	245	3.57	3	1.49	2	5.06	4
B. Attending University	122	3.56	4	1.52	1	5.08	3
C. Outside Education	234	3.90	2	1.48	3	5.38	2
D. Teaching in this system	2180	3.96	1	1.48	4	5.43	1
Total	2781*	3.90		1.48		5.38	
F		3.42		0.16		2.29	
Significance		.02		N.S.		N.S.	
Significance by Different Pairs		A-D		--		--	

*41 respondents did not complete the item indicating their plans for the next year.

significant differences were established among groups. Those teachers who planned changes for the coming year typically displayed less congruence between their specialization, preference and assignment.

The specialization-assignment scale (M-1) produced a similar ranking of means, again with returning teachers having the highest mean score. The M-2 scale did not

reflect any significant differences in the preference between the four groups used for this analysis.

Discussion

There appears to be less of a relationship between misassignment and activity the following year (Table 26) compared with misassignment and activity the previous year (Table 25). A number of reasons could account for this. First, this comparison covers the three school years from the fall of 1967 to the spring of 1970 during which time many conditions could change, including teacher supply. This will be reflected in the type of decision a teacher makes regarding his assignment for the next year as well as in the type of staffing decisions made by the employing school boards. Times of teacher over-supply or under-supply affect teachers and their boards in quite different ways.

A second factor to be considered would be the possibility of a new assignment within the system more congruent with the teacher's specialization and preference. In addition, even mediocre congruence of assignment to specialization and preference could often be enough to hold a new teacher in a system a second year. In this way the educational system obtains some of the benefits of the teacher's first year of experience while the teacher establishes a good reference.

The finding that teachers continuing in the same

system the following year had higher mean scores overall was expected. Again the misassignment preference scale reflected the previously discussed preference of intermediate teachers to be subject specialists, at least to a degree greater than is common at the moment.

Findings on Misassignment and Teacher Use of Instructional and Organizational Practices

The findings reported to this point have described the extent of misassignment at the intermediate level and the investigation of factors related to causes of misassignment. This section reports the one effort of the present study to investigate a possible effect of misassignment, that is, the possible relationship between misassignment and the variety of practices employed by teachers. The statistical treatment of data for this section made use of both correlation and multiple linear regression analyses, the results of which are reported below.

Correlations. To investigate the possibility of a relationship between the use of instructional practices and misassignment, scores obtained on the misassignment scales and on the variety of practices ratio scales were correlated. As presented in Table 27, there was no apparent linear relationship between scores obtained on the three misassignment scales and scores obtained on the three variety of practices scales.

Table 27

Correlations between Misassignment Scores and Variety of Practices Scores

	VP_1	VP_2	VP_T
M-1	-.01	-.03	-.03
M-2	-.02	-.02	-.02
M-O	-.01	-.04	-.03

Discussion. The finding that there appears to be no relationship between the number of times each instructional resource and each organizational practice is used when compared to varying degrees of teacher misassignment, would seem to indicate the need for a further study which would attempt to relate varying degrees of teacher misassignment to the quality of instruction. A basic assumption to such a study could be that misassignment may have its effect in the quality of the activity rather than in the frequency of the activity.

Multiple Linear Regression. A stepwise regression analysis was used to test the relationship between misassignment scores as criterion variables and selected predictor variables including the variety of practices scores. As shown in Table 28, less than six percent of the variance was accounted for by this procedure.

The teacher's total academic and professional

Table 28

Stepwise Regression Analysis of the Variance of Misassignment Scores

Criterion Variable	Entering Order	Significant Predictors	Significance	% of Variance Accounted For
M-1	1	Preparation beyond high school	.001	5.61
	2	Experience in current system	.03	5.89
M-2	1	Number of teachers in the school	.001	0.80
	2	Experience in current system	.04	1.07
M-O	1	Preparation beyond high school	.001	4.66
	2	Number of teachers in the school	.01	5.02

preparation beyond high school as well as the number of years taught in his current system were found to be predictors of misassignment by specialization (M-1) at the .001 level and the .03 level respectively. The number of full-time teachers in a school and the number of years a teacher had taught in his current system were found to be predictors of misassignment by preference (M-2) at the .001 level and the .04 level respectively. The teacher's total academic and professional preparation beyond high school as well as the number of full-time teachers in a school were found to be significant predictors of the overall

misassignment scale (M-O) at the .001 level and the .01 level respectively.

Discussion. Although the stepwise regression analysis accounted for only six percent of the variance, this procedure identified academic preparation of teachers, the size of the school and the number of years a teacher had taught in his present system as factors related to misassignment. All three factors identified are consistent with findings elsewhere. As well, the results of Table 27, showing no relationship between the misassignment scales and the variety of practices scales were confirmed as the variety of practices scales were not among the factors identified as predictors of misassignment.

SUMMARY

Misassignment scores, calculated for approximately eighty percent of Alberta's full-time intermediate grade teachers, indicated a low congruence between teacher specialization and assignment and a very low congruence between teacher preference and assignment. Intermediate teachers, on the whole, scored lower than secondary teachers, an indication of increased misassignment on all three measures at the lower grade levels. This appeared to be related to the generalist nature of the majority of intermediate teachers, as specialist teachers in the sample scored significantly higher than the generalists on all

three misassignment scales.

Teachers in school divisions and counties reported the highest congruence between their fields of specialization and preference and their field of assignment within the context of widespread intermediate misassignment in all areas.

Highest congruence between specialization and assignment, as well as overall congruence between the teacher area of specialization, teacher preference and assignment, was reported by married women, by teachers who had been in their present system during the previous year, and by teachers who reported that they would be in their present system the following year. In all three of these analyses, scores obtained on the misassignment-preference scale did not indicate any significant differences between the preferences of the selected groups of teachers. This was seen as a desire by intermediate teachers to occupy more of a specialist role than at present.

Correlation of misassignment scales with variety of practices scales, and multiple linear regression analysis using the misassignment scales as criterion variables and the variety of practices scales as predictors failed to reveal a relationship between the variety of practices employed and teacher misassignment.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The initial section of this chapter summarizes the study and includes a re-statement of the problem and sub-problems, followed by a description of the instrumentation, methodology, sample and findings. Conclusions and implications are drawn from the findings and the chapter concludes with recommendations for further research.

SUMMARY OF THE STUDY

Problem

The purpose of this study was to establish factors related to misassignment for intermediate grade teachers.

Sub-problems

(1) To what extent are intermediate grade teachers in the Province of Alberta assigned to teach in the subject-matter field of their university specialization?

(2) To what extent are intermediate grade teachers in the Province of Alberta assigned to teach in their preferred subject-matter field?

(3) What is the relationship between level of assignment-misassignment and the degree of teacher specialization in one subject-matter field?

(4) What is the relationship between level of assignment-misassignment and teacher personal variables?

(5) What is the relationship between level of assignment-misassignment and the type of administrative unit in which the teacher is employed?

(6) What is the relationship between level of assignment-misassignment and teacher activity during the previous year and intended activity during the next year?

(7) What is the relationship between level of assignment-misassignment and teacher use of instructional and organizational practices?

Instrumentation and Methodology

The data for this study were obtained from the returns of the 1969 Alberta Teaching Force survey directed by Ratsoy for the Alberta Advisory Committee on Educational Studies. The questionnaire was circulated in May, 1969 and was completed by 18,074 Alberta teachers, approximately ninety percent of the teachers employed in Alberta at that time.

Among the 18,074 teachers were 3,043 full-time intermediate teachers who were the target population for the present study. However the sample was established at 2,824 full-time teachers by exclusion of those who failed to complete items essential to the calculation of misassignment scores. Each teacher in the sample was assigned three misassignment scores based on specialization-assignment and preference-assignment. Of the original 2,824 intermediate teachers, 1,630 teachers with four or more out of six

selected instructional resources available, were used for the part of the analysis involving variety of practices ratio scores. Three variety of practices ratio scores based on the use of instructional resources and organizational practices were calculated for these 1,630 teachers.

The analysis of variance technique was used to determine whether differences between mean scores for the various groups used in the analysis were significant. Where significant differences were identified, a second set of analyses using the Scheffé method was employed to establish the specific pairs where differences occurred. The a priori level of significance for the F ratio was .05. For the Scheffé test it was established at .10 except in providing for marked departures in homogeneity of variance and normality, a higher level of significance, .05, was used to test for significant differences between pairs of means.

Multiple linear regression, with an a priori significance level of .05, was used to establish predictors of misassignment.

Description of the Sample

The 2,824 full-time intermediate grade teachers of this study had a female to male ratio of three to one. Approximately twenty-five percent of each sex were single.

Single men accounted for six percent of the sample, and typically were age thirty-five or younger. Married women accounted for fifty percent of all teachers in the

study. They were evenly distributed across the age categories and were the group with the highest percentage of teachers in upper age categories.

Larger percentages of single men, married men and single women were employed in city districts than married women and the same three groups reported having spent fewer years in their current school than did the married women.

When classified by years of experience in their current school, married men were the group with the highest percentage in the two to four year category, while married women were most numerous in the category of those with more than four years of experience. However, three of every four Alberta intermediate grade teachers had been in their current school four years or less.

In terms of overall teaching experience, the three to nine year category had the largest numbers of teachers in all types of administrative units. City districts, however, had the highest proportion of teachers with less than ten years of experience.

For the province as a whole, the intermediate men teachers were better qualified than women in terms of years of preparation after grade twelve with married men having higher qualifications than single men with the opposite being true for women.

SUMMARY OF THE FINDINGS

Intermediate grade misassignment was measured in three ways. First, misassignment by specialization revealed a fairly even distribution of scores across the score categories. Forty-three percent of the teachers obtained scores which indicated at best that there was congruence between their field of specialization and their minor field of assignment. The scores of secondary teachers in the province on this scale had a mean score of 4.38 (scale of six) compared to 3.90 for intermediate teachers in this study (scale of seven). Intermediate teachers when classified by degree of specialization obtained mean scores of 4.56 for specialist teachers and 3.83 for generalist teachers, indicating higher congruity between specialization and assignment for specialist teachers.

Secondly, an examination of teacher assignment by preference indicated that the teaching field for sixty-nine percent of the teachers did not correspond to either their major or minor fields of assignment. The scores of secondary teachers had a mean of 2.80 compared to 1.48 for intermediate teachers in this study. Intermediate specialists had a mean score of 2.26 while generalists obtained a mean score of 1.39, indicating higher congruity between preference and assignment for specialist teachers.

Finally, the total misassignment scale revealed a low overall congruence between teaching field of assignment

and the fields of specialization and preference combined. The scores of secondary teachers had a mean of 7.15 compared to 5.38 for intermediate teachers. Intermediate specialists obtained a mean score of 6.82 while generalists obtained a mean score of 5.22 indicating higher overall congruity between the fields of specialization and preference of intermediate teachers and their assignments.

Although misassignment scores were low in all types of administrative units, non-city teachers were awarded significantly higher scores than city teachers, which indicated greater congruity between preference and specialization combined, and assignment. This was a reversal of the secondary situation and appeared to be consistent with the characteristics of the intermediate teaching force. As non-city teachers typically were older, had fewer total years of training after grade twelve, were more experienced, and were less mobile which may be a reflection of the fact that non-city areas employed larger percentages of married women.

Married women, teachers who had been in the system during the previous year, and teachers who reported that they would be in the system during the following year, all had significantly higher mean scores by assignment-specialization and overall assignment-misassignment when compared to the other groups used in the analysis.

In calculating variety of practices scores, any

teacher with fewer than four instructional resources available was omitted, resulting in a sample reduction of forty-two percent. Nineteen percent of the original city teachers and fifty-two percent of the original division, county and rural teachers were eliminated by this restriction.

In comparison to findings of a 1970 study of junior high school teachers, intermediate teachers had lower mean scores for resource use and higher mean scores for use of selected organizational practices.

Intercorrelations between misassignment scores and variety of practices scores failed to reveal any linear relationship between the number of times a resource or organizational practice was used and the degree of teacher misassignment. A stepwise regression analysis of selected variables identified academic preparation of teachers, the size of the school, and the number of years a teacher had taught in his present system as variables related to misassignment; however the total variance accounted for by the three variables was only six percent.

CONCLUSIONS

From the findings of this study, the following conclusions may be drawn:

(1) Misassignment at the intermediate level by teacher specialization was widespread and more frequent

than at the secondary level.

(2) Misassignment at the intermediate level by teacher preference was very widespread and more frequent than at the secondary level. This seemed to indicate intermediate teachers desired to be subject specialists to a degree greater than is common at the moment.

(3) The assignments of intermediate specialist teachers were more closely related to their training and preference than the assignments of generalist teachers.

(4) The sex and marital status of intermediate grade teachers were found to be related to specialization-misassignment but not to preference-misassignment.

(5) Non-city teachers reported greater congruity between their fields of specialization and preference and their field assignment than city teachers.

(6) Teacher activity during the previous year and intended activity during the following year were found to be related to specialization-misassignment but not to preference-misassignment.

(7) There was no relationship between the frequency of use of instructional resources and organizational practices and the misassignment scores of teachers.

IMPLICATIONS

Some general implications of the study are:

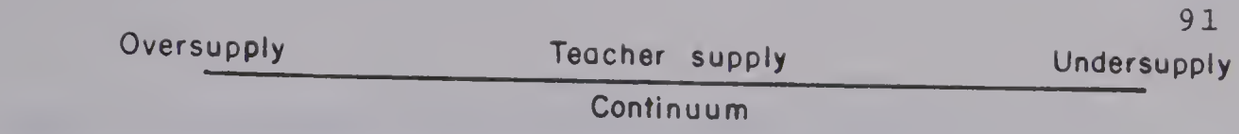
(1) Assignment decisions often assume a considerable

degree of permanence so that the end of a teacher shortage may not affect the level of misassignment as many previous assignments will continue and teachers in general are less likely to move.

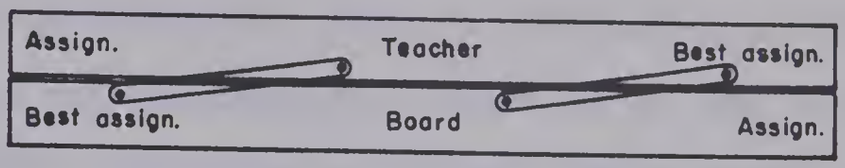
(2) Oversupply of certain types of teachers with an undersupply of other types could actually increase misassignment. The provincial department of education and teacher training institutions should determine and publicize the subject areas and levels in which there is a demand for teachers and those areas in which there is at present a teacher surplus.

(3) Intermediate grade supervisors should consider more specialized intermediate teaching assignments. For example, an intermediate teacher highly trained in mathematics and English and to a lesser extent in two other subjects could teach mathematics and English to one group of students and yet be allowed some specialization in other fields.

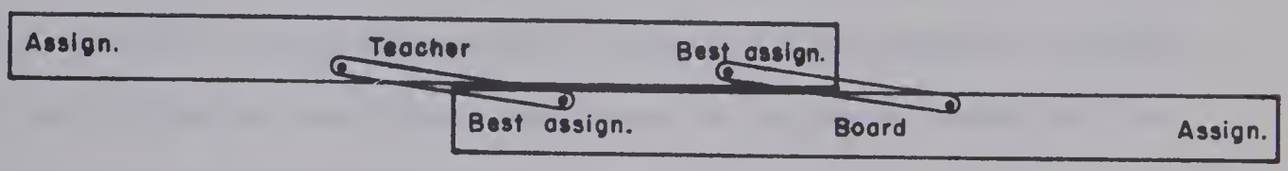
(4) Specific recommendations are made in relation to the view of assignment presented in Figure 8 which illustrates the teacher's search for a teaching assignment and the hiring board's search for a teacher. Figure 8A indicates that in times of teacher oversupply, teacher concerns are to obtain an assignment whereas school boards have the opportunity to be selective. In times of teacher undersupply, the teacher may be selective whereas boards

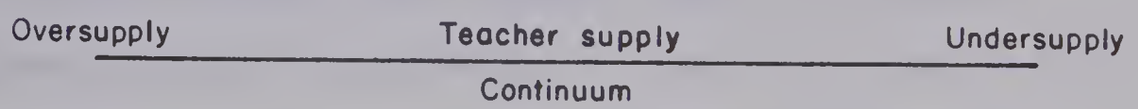


(A) OVERVIEW OF ASSIGNMENT



(B) IDEAL ASSIGNMENT DECISION





(C) TYPICAL ASSIGNMENT DECISION

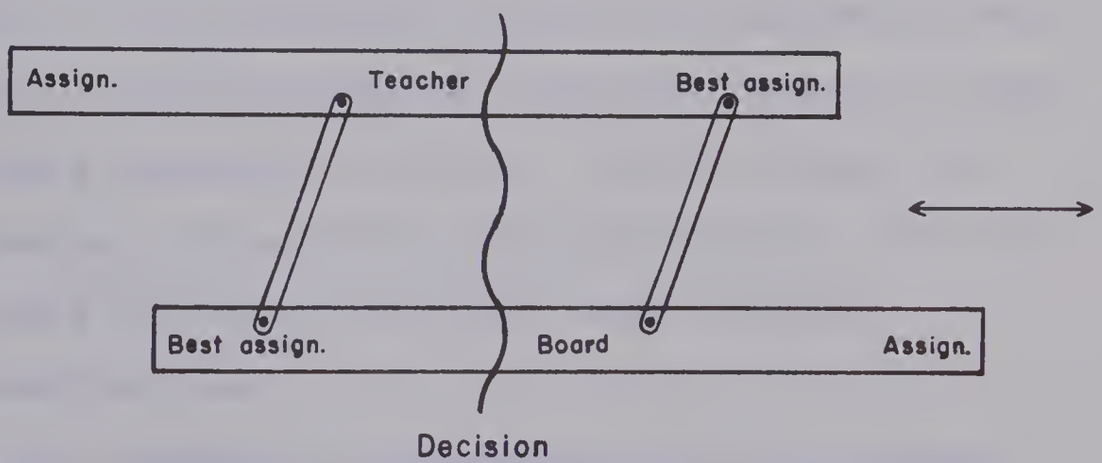


Figure 8

A Pictorial Representation of Teacher Assignment-Misassignment

must be concerned with filling each position. The representation of these opposing trends in the form of continua is an attempt to parallel concepts of Maslow's Hierarchy of the prepotency of needs since one extreme of each continuum represents acquiring "basic necessities" while the other extreme represents the need to develop into everything that one can become". It is recognized however that Maslow's Hierarchy was originally intended to apply to individuals but there appears to be some parallel to the needs of organizations.

Figure 8B represents the optimum in assignment which administrators can achieve, that is, teacher assignment highly satisfactory to both the board and the teacher. Figure 8C depicts a more realistic view of assignment. The assignment decision is represented by a wavy line. Administrators in organizations tend to make "satisficing decisions", that is, the best under the circumstances, rather than optimum decisions. As an aid to improving assignment decisions some specific recommendations are:

(1) A teacher's credentials should be examined closely for courses that specifically prepare the teacher for a particular assignment once the total number of years of training after grade twelve has been established. This requires detailed records in the central office of each school unit.

(2) Advertisements for teachers should be explicit in describing the requirements of a particular position.

(3) Teachers and those responsible for teacher assignment, usually principals should have adequate opportunity to communicate with each other prior to final assignment.

(4) Notification of specific assignment should be given to teachers before they report at the beginning of the year to prevent opening day discoveries of serious consequences.

(5) The multiple interview technique could be used in hiring to ensure the acquisition and accurate recording of pertinent information.

(6) Consideration should be given, where feasible, to the movement of an experienced teacher from one school to another to teach one set of courses for which he is specifically prepared.

RECOMMENDATIONS FOR FURTHER RESEARCH

(1) Since this study represents an initial attempt to quantify teacher misassignment in a division of the elementary school, parallel studies should be carried out to verify these results and to investigate changes in the province of Alberta over a period of years. This should include an in-depth study involving a representative sample of teachers and perhaps some method of ensuring consistency

in the responses to items involved in the calculation of misassignment scores.

(2) Studies of departmentalized elementary schools are essential when considering current assignment practices in elementary schools.

(3) This study measured misassignment by qualifications and misassignment according to preference. Another study could include misassignment by personality as well as an investigation of the position that experience may offset some effects of misassignment.

(4) As more becomes known about the measurement of quality teaching, future studies could attempt to relate misassignment scales such as these to various measures of quality teaching which could include student attitude and skill development. Problems in these areas are often identified when they are difficult to rectify. Perhaps improved assignment practices at all grade levels, but particularly in the lower grades, could prevent some of these problems from occurring or at least reduce their effect on the student.

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A P P E N D I X A

Questionnaire

REPLICATION OF CAMERON COMMISSION STUDY OF ALBERTA TEACHING FORCE

The Alberta Royal Commission on Education, recognizing the key position held by teachers in Alberta education, conducted a detailed survey in 1958 of the status of teachers and teaching in the Province.

A replication of this study of the Alberta teaching force is being sponsored and conducted by the Alberta Advisory Committee for Educational Studies. In addition to the replication items, others have been added which are designed to reflect some of the changes which have occurred since 1958. The Committee has the support and participation of the ALBERTA FACULTIES OF EDUCATION, DEPARTMENT OF EDUCATION, ALBERTA FEDERATION OF HOME AND SCHOOL ASSOCIATIONS, ALBERTA TEACHERS' ASSOCIATION and the ALBERTA SCHOOL TRUSTEES' ASSOCIATION.

Your careful and prompt reply is essential in this replication of the Commission's work. The information obtained through this report will be kept strictly confidential. Your name and address are required only to facilitate checking. The returned forms will be seen by only a few research members, while the findings of the survey will be published in summary form so that individual teachers cannot be identified.

The committee requests all educators employed by school boards in the province to return a completed report to their Principal or Superintendent of Schools as soon as possible, but not later than May 9, 1969.

Your Name (Mr. Mrs. Miss) .....
SURNAME (PRINT) CHRISTIAN NAMES

Maiden Surname ..... Religious Name .....
(IF WOMAN WHO HAS MARRIED) (IF MEMBER OF A RELIGIOUS ORDER)

Address in School District .....

Name of School ..... School Division, District or County .....

The questions in this survey are contained on pages designed for processing on an IBM 1230 Optical Scanner. The directions for completing the questionnaire are as follows:

1. Use only an HB pencil to record your response.

2. Indicate your response to each item by placing a mark between the guidelines preceding the alternative which best describes your employment or status from among the alternatives to the question.

:::::	Under 10	▬	20 to 29
:::::	10 to 19	:::::	30 or more

3. Answer every question.

4. Mark only one response to each question.

5. Do not fold the questionnaire.

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
I

1. Which of the following most nearly describes the position you hold in your school system this year?

	Classroom teacher, giving all or nearly all of time to classroom teaching.			Vice-principal or assistant principal, teaching half time or more.			Supervisor, coordinator or consultant of a subject field, grade(s) or division(s) working in or from the district, division or county office.
	Part-time, temporary, or substitute teacher.			Vice-principal or assistant principal, teaching less than half time or not teaching.			Counsellor or psychologist working in or from the district, division, or county office.
	Department Head, grade coordinator or consultant assigned to one school.			Principal, teaching half time or more.			Coordinator or consultant of a subject field or grade(s) assigned to two or more schools (not working from the district, division or county office).
	Counsellor, teaching half time or more.			Principal, teaching less than half time.			Superintendent.
	Counsellor, teaching less than half time or not teaching.			Non teaching principal.			Assistant or deputy superintendent.
	Librarian, teaching half time or more.			Director or coordinator of a special service (personnel, A/V materials, research, public relations, etc.) working in or from the district, division or county office.			Other.
	Librarian, teaching less than half time or not teaching.						

2. In which DIVISION(S) does your MAIN responsibility this year lie?

	Primary (K to III)		Senior High (X to XII)			Junior and Senior High
	Intermediate (IV to VI)		Both Primary and Intermediate			Elementary, Jr. and Sr. High
	Junior High (VII to IX)		Elementary and Junior High			Junior College

3. In which GRADE do you do MOST teaching this year?

	One		Five		Nine		Kindergarten			Equally in 2 or more Sr. High grades
	Two		Six		Ten		Equally in 2 or more Elementary grades			Junior College
	Three		Seven		Eleven		Equally in 2 or more Jr. High grades			No regular teaching
	Four		Eight		Twelve					

4. How many HOURS PER WEEK do you spend IN CLASSROOM TEACHING? (Exclude time spent counselling, supervising, etc.)

	None		Over 5 to 10 hours		Over 20 to 25 hours
	Under 2 hours		Over 10 to 15 hours		Over 25 to 30 hours
	2 to 5 hours		Over 15 to 20 hours		Over 30 hours

5. What is the ENROLMENT of the LARGEST CLASS that you teach? If you supervise some pupils while teaching others, consider a class to be the total number of pupils for whom you have sole charge in your room at any one time.

	Under 10		16 to 20		26 to 30		36 to 40			Over 45	
	11 to 15		21 to 25		31 to 35		41 to 45			No regular classroom teaching	

6. What is the ENROLMENT of the MEDIAN-SIZED (Middle-sized) CLASS you teach? Class defined as in Ouestion 5. If you teach only one class, mark same response as in Ouestion 5.

	Under 10		16 to 20		26 to 30		36 to 40			Over 45	
	11 to 15		21 to 25		31 to 35		41 to 45			No regular classroom teaching	

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7. What is the total number of DIFFERENT PUPILS that you teach in a week?

	Under 30 pupils		50 to 99 pupils		200 to 299 pupils			No regular teaching
	30 to 39 pupils		100 to 149 pupils		300 to 399 pupils			
	40 to 49 pupils		150 to 199 pupils		400 or more			

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

2

8. In what TYPE OF SCHOOL do you work? For question 8 and 9 consider YOUR SCHOOL to be the organization under the direct responsibility of your Principal.

:::::	Not assigned to one school (ie., work in or from central office or in several schools).		:::::	Junior High School (has some or all of Grades VII or IX but no grades below VII or above IX).		:::::	Elementary and Junior High	
:::::	Elementary (School has some or all of Grades I to VI, but no grade above VI).		:::::	Senior High School (School has some or all of Grades X to XII but no grades below X).		:::::	Elementary, Jr. and Sr. High	
						:::::	Junior High and Senior High	
						:::::	Other	

9. How many TEACHERS (full-time equivalent) teach in the SCHOOL in which you teach? Include the principal and yourself.

:::::	1 Teacher		:::::	9 to 12 teachers		:::::	25 to 49 teachers		:::::	I am not assigned to one School
:::::	2 or 3 teachers		:::::	13 to 18 teachers		:::::	50 to 99 teachers			
:::::	4 to 8 teachers		:::::	19 to 24 teachers		:::::	100 or more teachers			

10. By what TYPE OF ADMINISTRATIVE UNIT are you employed? If by a Division or County, mark the first alternative. If by an Independent (Non-Divisional) District, mark an alternative other than "School Division or County".

:::::	School Division or County		:::::	Rural School Dist. (not RC Sep.)		:::::	Federal Indian School	
:::::	City District (not RC Sep.)		:::::	City District (RC Sep.)		:::::	D.N.D. School	
:::::	Town District (not RC Sep.)		:::::	Town District (RC Sep.)		:::::	Private School	
:::::	Village District (not RC Sep.)		:::::	Village or Rural Dist. (RC Sep.)		:::::	Other	
:::::	Consolidated Dist. (not RC Sep.)		:::::	Regional High School District				

11. What is the EXTENT of your TOTAL ACADEMIC and PROFESSIONAL PREPARATION BEYOND HIGH SCHOOL?

:::::	Less than a 1-year program (7 mos.) in a Normal School, Teachers' College or University.		:::::	Three complete years but less than four in a University and/ or Teachers' College.		:::::	Five complete years but less than six in a University and/ or Teachers' College.	
:::::	Standard 1-year program (7 mos. or more) in a Normal School, Teachers' College or University.		:::::	Four complete years but less than five in a University and/ or Teachers' College.		:::::	Six or more complete years in a University and/or Teachers' College.	
:::::	Two complete years but less than three in a University and/or Teachers' College.							

12. For how many yaars of teacher education ara you paid?

:::::	1 yaar but lass then 2		:::::	4 years but less than 5		:::::	7 yaars or more	
:::::	2 years but lass then 3		:::::	5 years but lass than 6		:::::	Years of taachar education are not usad to calculata my salary.	
:::::	3 yeers but less than 4		:::::	6 yaars but lass than 7				

13. WHERE did you obtain your EARLIEST CERTIFICATION FOR TEACHING?

:::::	In Alberta		:::::	In England, Scotlend or Walas		:::::	In Australia or Naw Zaaland	
:::::	In Sasketchewen		:::::	In tha Unitad States of Amarica		:::::	In Asia	
:::::	In enother Canedian province		:::::	In Continantal Europa		:::::	Somawhara not listad here	

14. Whet is the HIGHEST UNIVERSITY DEGREE you hold?

:::::	No Degree		:::::	B. Sc.		:::::	Two or more Bechelor degrees		:::::	Other Mester's
:::::	B. Ed.		:::::	Other Bechelor's Degree		:::::	M. Ed.		:::::	Ed. D. or Ph. D.
:::::	B. A.								:::::	Other

15. In what year, since starting to teach, did you last attend a university full-time (winter) session?

:::::	Before 1945		:::::	1950 to 1954		:::::	1960 to 1964		:::::	1966		:::::	1968
:::::	1945 to 1949		:::::	1955 to 1959		:::::	1965		:::::	1967		:::::	Never

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

3

16. In what year, since starting to teach, did you last attend a credit course at a UNIVERSITY SUMMER SCHOOL or UNIVERSITY EVENING CREDIT PROGRAM?

:::::	Before 1945	:::::	1950 to 1954	:::::	1960 to 1964	:::::	1966	:::::	1968
:::::	1945 to 1949	:::::	1955 to 1959	:::::	1965	:::::	1967	:::::	Never

17. In what year, since starting to teach, did you LAST attend a NON-CREDIT course of at least 5 days' duration or 10 evenings or equivalent? (Include Short Course for Principals or similar non-credit summer or evening courses).

:::::	Before 1945	:::::	1950 to 1954	:::::	1960 to 1964	:::::	1966	:::::	1968
:::::	1945 to 1949	:::::	1955 to 1959	:::::	1965	:::::	1967	:::::	Never

18. For which area of specielizetion do you consider yourself MOST edequately prepared?

:::::	Reeding	:::::	Mathematics	:::::	Home Economics	:::::	Vocationel Subjects (Other than Business)
:::::	Socie! Studies	:::::	Science	:::::	Libreries	:::::	Counselling-Psych.
:::::	English	:::::	Fine Arts	:::::	Industrial Arts	:::::	Administretion
:::::	French	:::::	Physicel Education	:::::	Business Educetion	:::::	Exceptionel Children
:::::	Languege (Other then French or English)	:::::	Teaching or super-vising Grades 1-2-3	:::::	Teeching or super-vising Grades 4-5-6	:::::	Other

19. How meny university undergreduete courses (or equivelent) have you completed in your specielization merked in 18?

::::: 1 ::::: 2 ::::: 3 ::::: 4 ::::: 5 ::::: 6 ::::: 7 ::::: 8 or more ::::: None

20. How many university greduate courses heve you completed in your specielizetion chosen in 18?

::::: 1 ::::: 2 ::::: 3 ::::: 4 ::::: 5 ::::: 6 ::::: 7 ::::: 8 or more ::::: None

21. Which is your second field of specielization?

:::::	Reading	:::::	Mathematics	:::::	Home Economics	:::::	Vocational Subjects (Other than Business)
:::::	Social Studies	:::::	Science	:::::	Libraries	:::::	Counselling-Psych.
:::::	English	:::::	Fine Arts	:::::	Industrial Arts	:::::	Administration
:::::	French	:::::	Physical Education	:::::	Business Education	:::::	Exceptional Children
:::::	Language (Other than French or English)	:::::	Teaching or super-vising grades 1-2-3	:::::	Teaching or super-vising grades 4-5-6	:::::	No second field of specialization
						:::::	Other

22. How many university courses (or equivalent) have you completed in your specialization marked in 21?

::::: 1 ::::: 2 ::::: 3 ::::: 4 ::::: 5 ::::: 6 ::::: 7 ::::: 8 or more ::::: None

23. Which field ere you mainly assigned to during the PRESENT SCHOOL YEAR?

:::::	Reading	:::::	Mathematics	:::::	Home Economics	:::::	Vocetional Subjects (Other then Business)
:::::	Social Studies	:::::	Science	:::::	Libraries	:::::	Counselling-Psych.
:::::	English	:::::	Fine Arts	:::::	industrial Arts	:::::	Administretion
:::::	French	:::::	Physical Education	:::::	Business Educetion	:::::	Exceptionel Children
:::::	Languege (Other than French or English)	:::::	Teaching or super-vising gredes 1-2-3	:::::	Teaching or super-vising gredes 4-5-6	:::::	Other

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24. What proportion of your teaching week is devoted to the fieid you heve marked in question 23?

::::: Less than 10% ::::: From 10 to 24% ::::: From 25 to 49% ::::: From 50 to 74% ::::: From 75 to 89% ::::: 90%-plus

25. How many university courses (or equivalent) have you completed in the area of concentration marked in question 23?

::::: 1 ::::: 2 ::::: 3 ::::: 4 ::::: 5 ::::: 6 ::::: 7 ::::: 8 or more ::::: None

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

4

26. You may be assigned to more than one field this school year. Which is your SECOND FIELD OF CONCENTRATION?

Reading	Mathematics	Home Economics	Vocational Subjects (Other than Business)
Social Studies	Science	Libraries	Counselling-Psych.
English	Fine Arts	Industrial Arts	Administration
French	Physical Education	Business Education	Exceptional Children
Language (Other than English or French)	Teaching or supervising grades 4-5-6	Teaching or supervising grades 1-2-3	No second field of concentration
			Other

27. What proportion of your teaching week is devoted to the field you have marked in Question 26?

Less than 10% | From 10 to 24% | From 25 to 49%

28. How many university courses (or equivalent) have you completed in the area of concentration marked in question 26?

1 | 2 | 3 | 4 | 5 | 6 | 7 | B or more | None

29. In which field would you PREFER to work?

Reading	Mathematics	Home Economics	Vocational Subjects (Other than Business)
Social Studies	Science	Libraries	Counselling-Psych.
English	Fine Arts	Industrial Arts	Administration
French	Physical Education	Business Education	Exceptional Children
Language (Other than English or French)	Teaching or supervising grades 4-5-6	Teaching or supervising grades 1-2-3	Other

30. How many university courses (or equivalent) have you completed in the field of preference marked in question 29?

1 | 2 | 3 | 4 | 5 | 6 | 7 | B or more | None

31. How many different courses or subjects do you teach? (Elementary teachers count reading, art, etc. separately)

1 | 2 | 3 | 4 | 5 | 6 | 7 | B or more | none regularly

32. Counting the present school year, what is your TOTAL NUMBER of SCHOOL YEARS of full-time experience in the field of education as a teacher, administrator, counsellor, etc.

1 | 2 | 3–4 | 5–9 | 10–14 | 15–19 | 20–24 | 25–34 | Over 34

33. Counting the present year, what is the number of years of full-time experience you have had IN THE SCHOOL SYSTEM where you are now employed?

1 | 2 | 3–4 | 5–9 | 10–14 | 15–19 | 20–24 | 25–34 | Over 34

34. Counting the present year, what is the number of years of full-time experience you have had in the SCHOOL where you now hold a position?

1 | 2 | 3–4 | 5–9 | 10–14 | 15–19 | 20–24 | Over 24 | N/A

35. Since you began teaching, in how many DIFFERENT school systems have you taught full time?

1 | 2 | 3 | 4 | 5 | Over 5

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36. Since you began teaching, in how many DIFFERENT schools have you taught full time?

1 | 2 | 3 | 4 | 5 | 6 | 7–10 | Over 10

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10 A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10 A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10
A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10 5

37. How many breaks of at least 1 school year have there been in your full-time teaching service?

1	2	3	Over 3	None

38. What was the PRIMARY REASON for your most recent break in your teaching service?

Further Study	Marriage or full-time homemaking	Forced resignation from teaching
Ill Health	Maternity or child rearing	Other
Non-teaching employment	Husband transferred or moved	No Breaks
Military Service		

39. What is the TOTAL NUMBER OF YEARS AWAY FROM TEACHING referred to in question 37?

1	3–4	10–14	20–24	None
2	5–9	15–19	Over 24	

40. What were you doing in MARCH, 1968?

Teaching in another Alberta system	Working in education but not as a classroom teacher	Working in a position in a field outside of education
Teaching in this system	Attending university or college	Unemployed and seeking work
Teaching outside Alberta	Homemaking	Other

41. What were you doing in MARCH, 1967?

Teaching in another Alberta system	Working in education but not as a classroom teacher	Working in a position in a field outside of education
Teaching in this system	Attending university or college	Unemployed and seeking work
Teaching outside Alberta	Homemaking	Other

42. What do you expect to do in the SCHOOL YEAR 1969-70?

Teach in another Alberta system	Work in education but not as a classroom teacher	Attend university full time for further training in teaching
Teach in this system	Work in a non-teaching position	Be a full time homemaker
Teach outside of Alberta	Study full time in a field outside of teaching	Other

43. Do you plan to REMAIN in the field of education until retirement?

Yes	Undecided, probably will	Undecided, probably will not	No

44. Does your school have full or part-time clerical personnel (typist, filing clerk, etc.)?

Yes, on a full-time basis and available to assist me	Yes, on a part-time basis and available to assist me	I am not assigned to one school or question does not apply
Yes, on a full-time basis but not available to assist me	Yes, on a part-time basis but not available to assist me	No

45. What was your average use of clerical personnel in your school since September 1, 1968?

Less than 1 hr/wk	3 to 5 hrs/wk	11 to 20 hrs/wk	Over 40 hrs/wk
1 or 2 hrs/wk	6 to 10 hrs/wk	21 to 40 hrs/wk	None or N/A

46. What was your average use of teacher aides (non-certificated teachers' assistants other than clerical assistants) since September 1, 1968?

None in this school	1 or 2 hrs/wk	11 to 20 hrs/wk	Teacher aides are in the school but not available to assist me
Less than 1 hr/wk	3 to 5 hrs/wk	Over 20 hrs/wk	Question does not apply
	6 to 10 hrs/wk		

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10 A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10 A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10

A 1 B 2 C 3 D 4 E 5 F 6 G 7 H 8 I 9 J 10 6

47. What was the extent, since September 1, 1968, of your use of consultative or advisory personnel who "specialize" in the subject(s) you teach?

I do no regular teaching		Available, not used		3 to 5 times		11 to 20 times	
None available		Once or twice		6 to 10 times		Over 20 times	

48. How many student referrals were made by you to the counsellor or guidance officer since September 1, 1968?

I do no regular teaching		Available, no referrals		3 to 5 referrals		11 to 20 referrals	
None available		1 or 2 referrals		6 to 10 referrals		Over 20 referrals	

49. To what extent did you use ability grouping as initiated by yourself since September 1, 1968?

I do no regular teaching		Five or fewer times		11 times to ¼ time		⅓ to ¾ of the time	
No grouping used		6 to 10 times		¼ to ⅓ of the time		Over ¾ of the time	

50. How often since September 1, 1968, did you use small groups in your teaching (other than ability grouping)?

I do no regular teaching		Once or twice		6 to 10 times		Over 20 times	
None		3 to 5 times		11 to 20 times			

51. How often since September 1, 1968, did your students engage in projects of their own choosing during class time?

I do no regular teaching		Once or twice		6 to 10 times		Over 20 times	
None		3 to 5 times		11 to 20 times			

52. What proportion of teaching time did you devote to team teaching (i.e., joint planning and instruction of two or more regular-sized classes of students) since September 1, 1968?

I do no regular teaching		Less than 10%		26 to 50%		76 to 95%	
No involvement		10 to 25%		51 to 75%		Full time	

53. Does your school have a library available to an entire class during regular class time?

Yes, with a librarian who spends considerably more than half-time in the library		Yes, with a part-time librarian who spends about half-time in the library		Yes, with a part-time librarian who spends one-quarter time or less in the library			
Yes, but with no person designated as librarian		Question does not apply		No			

54. How many times, since September 1, 1968, have you arranged for your class(es) to use the library during the school day as part of classroom activity?

Question does not apply		Once or twice		6 to 10 times		Over 20 times	
Did not use		3 to 5 times		11 to 20 times			

55. How many times, since September 1, 1968, have you scheduled class activities in the material resources centre (other than the library)?

Question does not apply		No resources centre		3 to 5 times		11 to 20 times	
Did not use		Once or twice		6 to 10 times		Over 20 times	

56. Please indicate your SEX.

Male		Female	

57. Please indicate your MARITAL STATUS.

Single		Married					
Widowed, divorced, or separated		Member of an R.C. religious order					

58. Annual salary (before deductions) in effect in September.

Under $2,000		$10,001 to $12,000					
$2,000 to $4,000		$12,001 to $14,000					
$4,001 to $6,000		$14,001 to $16,000					
$6,001 to $8,000		Over $16,000					
$8,001 to $10,000							

59 What is your AGE (nearest birthday)?

Under 21		31 to 35		46 to 55			
21 to 25		36 to 40		56 to 65			
26 to 30		41 to 45		Over 65			

IBM 5095

A P P E N D I X B

Bivariate Frequency Distributions

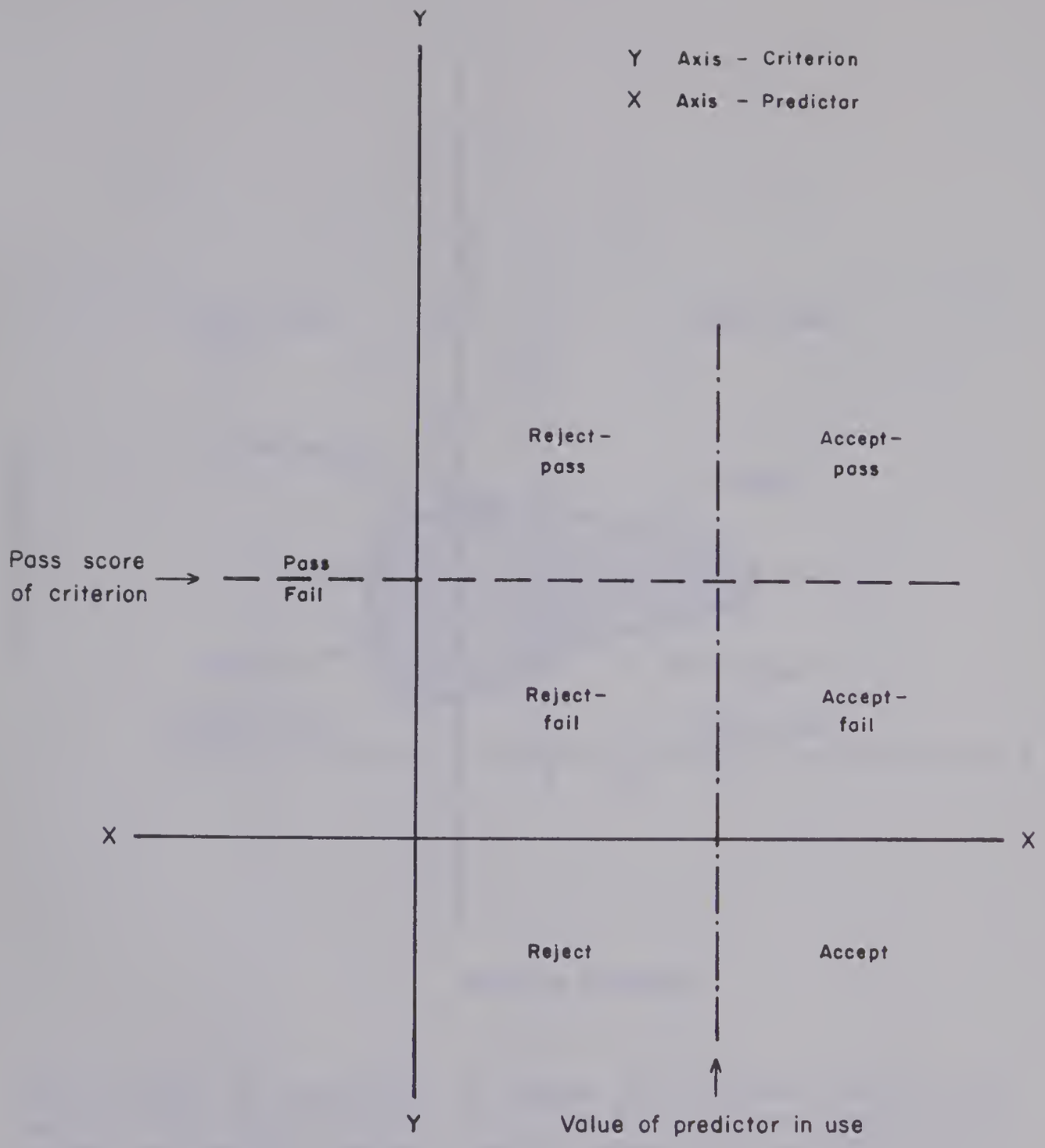
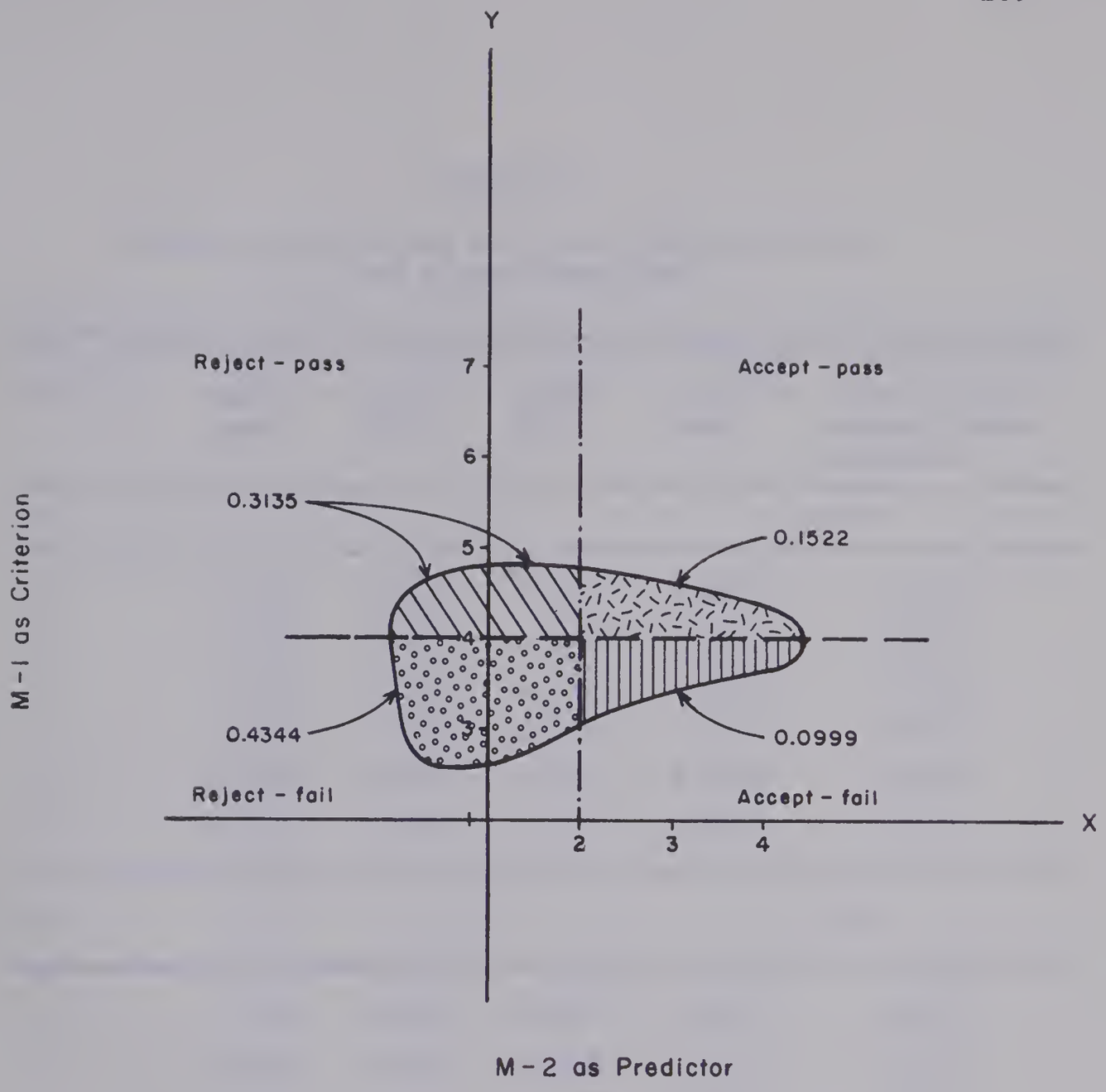


Figure 9

Quadrants to a Bivariate Frequency Distribution between Criterion and Predictor



[1]Percentage of variances in common for correct prediction are 0.1522 and 0.4344 x 100 = 58.79 %. Therefore 58 2/3 times out of 100, using the M-2 score of 2 as predictor, the M-1 scores would be predicted correctly.

Figure 10

Example of a Bivariate Frequency Distribution with M-1 as the Criterion Variable and M-2 as the Predictor Variable

Table 29

Prediction of M-2 and M-0 Scores (Criteria) from M-1 Scores (Predictor)

Predictor	Accept pass	Accept fail	Reject fail	Reject pass	Proportion of correct classifications
M-1					M-2
1	0.2409	0.6642	0.0837	0.0112	0.3246
3	0.1944	0.4536	0.2943	0.0577	0.4887
4	0.1522	0.3135	0.4344	0.0999	0.5866
5	0.1043	0.1857	0.5622	0.1478	0.6665
6	0.0613	0.0930	0.6549	0.1908	0.7162
7	0.0302	0.0385	0.7094	0.2219	0.7396
M-1					M-0
1	0.5475	0.3576	0.0949	0.0000	0.6424
3	0.5345	0.1135	0.3391	0.0129	0.8736
4	0.4471	0.0186	0.4340	0.1004	0.8811
5	0.2893	0.0007	0.4519	0.2582	0.7412
6	0.1543	0.0000	0.4525	0.3932	0.6068
7	0.0686	0.0000	0.4525	0.4788	0.5211

Table 30

Prediction of M-1 and M-0 Scores (Criteria) from Knowledge of M-2 Scores (Predictor)

Predictor	Accept pass	Accept fail	Reject fail	Reject pass	Proportion of correct classifications
M-2					M-1
1	0.3766	0.3563	0.1780	0.0891	0.5546
2*	0.1522	0.0999	0.4344	0.3135	0.5866
3	0.0179	0.0071	0.5272	0.4478	0.5451
4	0.0006	0.0002	0.5341	0.4651	0.5347
M-2					M-0
1	0.4767	0.2562	0.1964	0.0707	0.6731
2	0.2074	0.0447	0.4078	0.3401	0.6150
3	0.0238	0.0012	0.4514	0.5236	0.4752
4	0.0007	0.0001	0.4525	0.5468	0.4532

*See Figure

Table 31

Prediction of M-2 (Criterion) from M-O Scores (Predictor)

Predictor	Accept pass	Accept fail	Reject fail	Reject pass	Proportion of correct classifications
M-O					M-2
2	0.2496	0.6592	0.0887	0.0025	0.3383
3	0.2442	0.5793	0.1686	0.0080	0.4128
4	0.2315	0.4687	0.2792	0.0206	0.5107
5	0.2074	0.3401	0.4078	0.0447	0.6152
6	0.1709	0.2170	0.5309	0.0812	0.7018
7	0.1259	0.1192	0.6287	0.1262	0.7546
8	0.0813	0.0558	0.6921	0.1708	0.7734
9	0.0452	0.0217	0.7262	0.2069	0.7714
10	0.0214	0.0069	0.7410	0.2307	0.7624
11	0.0086	0.0019	0.7460	0.2435	0.7546

Table 32

Prediction of M-1 (Criterion) from M-0 Scores (Predictor)

Predictor	Accept pass	Accept fail	Reject fail	Reject pass	Proportion of correct classifications
M-0					M-1
2	0.4656	0.4432	0.0912	0.0001	0.5568
3	0.4670	0.3565	0.1779	0.0000	0.6449
4	0.4649	0.2353	0.2990	0.0007	0.7639
5	0.4471	0.1004	0.4340	0.0186	0.8811
6	0.3688	0.0191	0.5153	0.0969	0.8841
7	0.2442	0.0009	0.5334	0.2215	0.7776
8	0.1370	0.0001	0.5342	0.3286	0.6712
9	0.0669	0.0000	0.5344	0.3988	0.6013
10	0.0284	0.0000	0.5344	0.4373	0.5628
11	0.0105	0.0000	0.5343	0.4552	0.5448